

[The Complete] Management Solution  
For Your Network

PRODUCT MANUAL

## ManageWise® 2.6

Desktop Management Guide



# Novell®

ManageWise®  
MANAGEMENT SOFTWARE

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# ***Introducing Desktop Management***

ManageWise® Desktop Manager software integrates remote access and control with inventory information gathering and anti-virus software tools into a centralized location. Desktop Manager tools are located on the ManageWise Console, providing a centralized point of control for your Windows NT servers and workstations, Novell NetWare\* servers and clients, and Windows\* for Workgroups, Windows 98, Windows 95, Windows 3.x, and DOS clients. You can also manage workstations running OS/2\* 2.1 and later.

## **Manage Your Network**

ManageWise Desktop Manager helps you manage your network by enabling you to:

- ◆ Remotely access and control workstations and servers.

Move files, launch programs, perform remote system operations across a network from a single ManageWise Console.

- ◆ Modify client-server system configuration files.

Make modifications to workstation and server configurations across the network from the ManageWise Console.

- ◆ View network information in real time and data collected from an inventory scan.

Data collection about network servers and workstations is available in real time, providing update information about network devices, DOS versions and available memory status. The inventory scanner collects information about software names, version numbers, and configuration statistics for servers and workstations. You can include Power Macintosh\* workstations, laptops, and other portable workstations in your inventory scans.

- ◆ Control stations at remote sites that do not have network lines to your office.

Desktop Remote controls a client or host workstation. A client workstation is a computer dialing in to a network over a modem line. A host workstation is a network node that is remotely controlled by the client workstation. Several configuration options are available for configuring the client and host workstations.

- ◆ Control network print queues.

Queue Monitor monitors print queues and print jobs, manages network print queues, and manipulates queued print jobs.

- ◆ ManageWise anti-virus software prevents viruses from being introduced into NetWare\* and Windows\* NT servers, and NetWare and Windows NT clients.

The anti-virus software has continuous and on-demand scanning on both the server and local workstation drives. It also has pattern-based and rules-based scanning. Refer to the AntiVirus guides for information on using anti-virus software.

## Desktop Manager Tools

ManageWise Desktop Management tools are listed below:

- ◆ Desktop Manager includes the following functions:
  - ◆ Remote Control
  - ◆ Chat
  - ◆ Diagnostics
  - ◆ File Transfer
  - ◆ Inventory
- ◆ Desktop Remote
- ◆ Queue Monitor

Use Table 1-1 to determine what ManageWise Desktop Management functionality is supported for the workstations on your network.

**Table 1-1**  
**Desktop Management Functionality**

	IPX	Microsoft NetBIOS, IPX, TCP/IP, NetBEUI	Winsock TCP/IP
Windows 98, Windows 95, Windows for Workgroups, Windows 3.1x	Remote Control Chat File Transfer Diagnostics Reboot Inventory Anti-virus	Remote Control Chat File Transfer Diagnostics Reboot Inventory	Remote Control Chat File Transfer Diagnostics Reboot Inventory
Windows NT workstations and Server	Remote Control Chat File Transfer Reboot Inventory		Remote Control Chat File Transfer Reboot Inventory
NetWare Server	Remote Control Inventory		
DOS	Remote Control Chat File Transfer Reboot Inventory	Remote Control Chat File Transfer Reboot Inventory	
OS/2	Remote Control Inventory		
Macintosh	Inventory		

## *chapter* **2** ***Managing Network Objects***

ManageWise® Desktop Manager locates network objects on a network and records them in a network inventory database. Network objects recorded in the inventory database can be viewed from within Desktop Manager. Network object information is displayed by opening the Network View window. From this window, you can select the workstations and servers you want to manage or diagnose.

This chapter contains the following sections:

- ◆ “Viewing Objects on the Network” on page 5
- ◆ “Creating Custom Object Groups” on page 11
- ◆ “Changing Server Connections” on page 15
- ◆ “Customizing the Toolbar” on page 16

### **Viewing Objects on the Network**

The Network View window displays servers, workstations, and other objects on your network in a logical tree structure called the object tree. Attributes for these objects are displayed in columns to the right. For information about organizing the objects and setting up the attributes shown in the columns, see Chapter 4, “Reporting Inventory Information.”

To open the Network View window, follow these steps:

Procedure

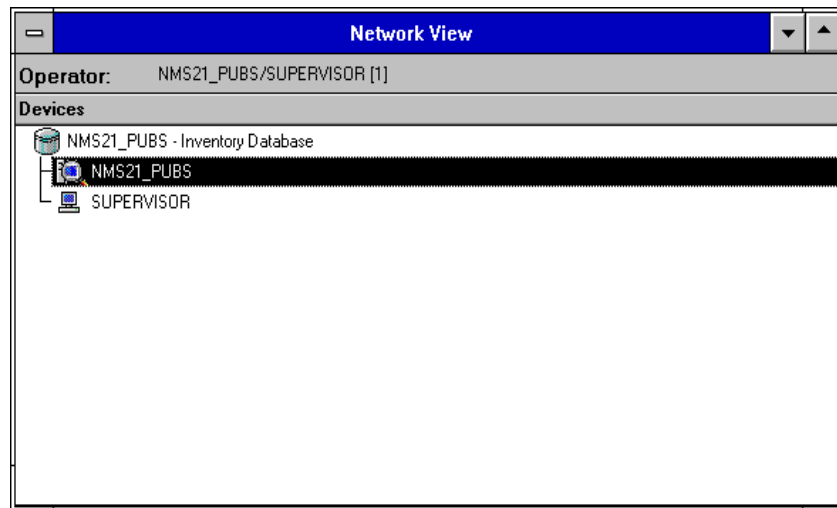


- 1. From the workstation where the ManageWise Console is installed, log in to the network with SUPERVISOR or ADMIN rights.**
- 2. Start Windows if you have not already done so.**

3. Double-click the ManageWise program group to open it.
4. Double-click the ManageWise Console icon.
5. From either the *View > All NetWare File Servers* window or one of the ManageWise Console maps, select a server.
6. Select *Tools > Desktop Manager*.

For steps on “Starting the ManageWise Console,” refer to Chapter 7, “ManageWise Basics” in the *ManageWise Setup Guide*.

**Figure 2-1**  
**Network View**  
**Window**



The icons at the root of the object tree represent groups of network objects. Desktop Manager has three standard groups: the Server group, the Database group, and the NDS™ (Novell Directory Services™) Tree group. The contents of these groups are discovered automatically. You can also define the contents of custom object groups.

You can perform the same kinds of tasks on an object regardless of the groups it is in. For example, if a workstation is listed in the Attached Servers group and the Database group, you can control the workstation after selecting it from either group.

Open a group to display the objects it contains or close it to simplify the object tree.

To expand or collapse a group in the object tree,

- ◆ Double-click the group icon or select the group and press Enter.



Opening a standard group updates the contents of the group.

Table 2-1 describes the icons used for the standard groups in the object tree.

Table 2-1  
Object Tree Icons: Standard Groups

Icon	Description
Server	<p>There are two default server groups in Desktop Manager: Attached Servers and Unattached Servers. Servers in these groups are updated dynamically to display the current attachments.</p> <p>Display workstations connected to the servers in the Attached Servers group by double-clicking the server icon. Workstations that attach to the server after the branch is expanded do not appear automatically. To update the list of workstations, close and reopen the workstation branch by double-clicking the server icon twice.</p>
Database	<p>The Inventory Database group includes all objects that have inventory records on the currently selected database.</p>
NDS Tree	<p>If you are attached to an NDS tree, the tree icon is placed in the object tree. You can browse through the NDS organizational structure of the tree for workstations and servers.</p>



Table 2-2 describes the meaning of the icons for custom groups in the object tree.

**Table 2-2**  
**Object Tree Icons: Custom Groups**

Icon	Description
Query Results	The Query Results group includes all nodes that were discovered from a query of the Inventory Database. The query results list is a subset of the database list. You cannot add objects to this list manually, and it is deleted when you exit Desktop Manager. To save the contents of the group, copy the objects to an alias name file.
Alias File	You can copy and paste objects from the object tree into alias name files. You can rename the objects you place in alias files.
Alias Group	Alias groups appear only inside alias files. You can copy and paste any objects from the object tree into alias groups. You can also create subgroups within groups.

## Updating Standard Groups

A standard group is updated each time it is opened. To view changes in objects connected to the network or entries in the database, the group must be updated.

To update a group in the Network View window, follow one of these steps:

- ◆ Close the group by double-clicking the group icon or select the group and press Enter.
- ◆ Reopen the group by double-clicking the group icon or select the group and press Enter. Opening a group updates the group objects.

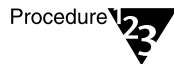
If you want to update more than one group, refresh the Network View window.

To update the contents of the entire Network View window, follow this step:

- ◆ Select *View > Rebuild Network View* or press F5.

Also, to update the column information, the database needs to be re-opened.

To update database information, follow these steps:



1. Select ***Options > Inventory Database.***
2. Select the currently opened database.
3. Click OK.

## Identifying Objects in the Object Tree

Icons represent objects on your network, these objects are located in groups. When the ManageWise User Agent is loaded on a workstation or server, the object icon displayed in the object tree is displayed with a magnifying glass. Only Windows NT workstations are identified by a red bar on the right side of the icon. The current status of the User Agent on a workstation or server can be determined by the icons displayed in the object tree. Desktop Manager receives information requested from the USER.NLM file loaded on servers and USER Agent loaded on workstations to communicate with the object. Table 2-3 explains the Desktop Manager object icons.

Table 2-3  
Desktop Manager Object Icons

Icon	Description
Server	Server status can be determined by the console icon. Desktop Manager displays the status of USER.NLM on servers by displaying a magnifying glass over the console:
Workstation	Desktop Manager displays the status of the user agent on workstations by displaying a magnifying glass over the workstation:
User Account	NetWare user account.

Table 2-3 *continued*

### Desktop Manager Object Icons

Icon	Description
Group Account	NetWare group account.

Desktop Manager offers a search feature to help you locate objects in the object tree. Only objects displayed in open groups are searched.

To search for a specific object on the object tree, follow these steps:

Procedure



1. **With the focus on the Network View window, type in the name of a user, object, or group.**
2. **To search for the next occurrence of the name you entered, press F3.**

## Limiting Real-Time Polling

Desktop Manager sends roughly one packet every second to check the status of the User Agent for the objects displayed on the screen. For low bandwidth or expensive lines, such as WAN and ISDN lines, you might want to keep the traffic to a minimum. You can eliminate Desktop Manager's background traffic by turning off the polling process.

To turn off the User Agent polling process, follow these steps:

Procedure



1. **In a text editor, open the NETMAP.INI file from the management workstation's WINDOWS directory.**
2. **In the [Default] section, change the USERCHECKER variable to OFF.**

Example: USERCHECKER= OFF

3. **Save the file and exit the editor. Restart Desktop Manager.**

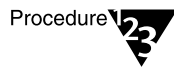
## Creating Custom Object Groups

You can create your own groups of objects by selecting and adding various objects to an alias name file or by using the query function. For more information on creating groups by query results, see Chapter 4, “Reporting Inventory Information.”

### Using Alias Name Files

You can create groups of network objects in the object tree by using the alias name file feature. An alias name file contains the descriptions of each of the members of a group of objects.

To create an alias name file, follow these steps, in the Desktop Manager window:

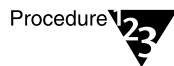


1. From the Desktop Manager Window, select **File > New Alias Name File**.

An untitled alias name file icon appears in the object tree.

2. Select the objects you want to include in the alias name file.
3. Select **Edit > Copy** to copy the selected objects to the Clipboard.
4. Select the alias name file, and select **Edit > Paste** to place the stations in the alias name file.

To save an alias name file, follow these steps:



1. Select the alias name file in the object tree.
2. Select **File > Save Alias Name File As**.
3. Select a drive and directory, and enter a filename.
4. Click OK.

Desktop Manager prompts you to save unrecorded changes to an alias name file as you exit or when you rebuild the Network View window.

To delete an alias name file, follow these steps:

Procedure



1. **Select the alias name file to be deleted.**
2. **Select *Edit > Delete*.**
3. **Click the Yes button in the Confirmation dialog box.**
4. **If you have saved the file and want to delete the file from the disk, select the Delete Alias File from Disk as Well option in the Delete Alias File dialog box.**
5. **Click OK.**

To open an alias name file, follow these steps:

Procedure



1. **Select *File > Open Alias Name File*.**
2. **Select a drive, directory, and file extension.**
3. **Select a filename.**
4. **Click OK.**

## Assigning Alias Names to Objects

You can rename the objects in an alias name file. This feature is particularly useful when the login name is not a sufficient object description, as in the following situations:

- ◆ Users log in to multiple workstations or log in to a workstation they do not typically use.
- ◆ A workstation is attached to the network, but no user is logged in.
- ◆ There is no indication of where a workstation is located.
- ◆ Many users share a single workstation.

The alias name file assigns the alias name to the object's physical node address. The alias name appears within the alias name group only. No other groups show alias names.

To rename a object in an alias name file, follow these steps:

Procedure



1. **Select an object in the alias name file.**
2. **Select *Edit > Modify*.**
3. **Type the new object name in the Name field.**
4. **Click OK.**

Note



You should save the alias name file each time you make changes.

## Using Alias Groups

You can create groups inside an alias name file and inside alias groups.

To create an alias group, follow these steps:

Procedure



1. **Select the alias name file or group in which you want to place the new group.**
2. **Select *Edit > Insert*.**
3. **Enter a name for the group in the Name field.**
4. **Select the Group Entry option.**
5. **Click OK.**
6. **Copy objects or groups into the alias group.**

## Alias Name File Format

The alias name file is a standard ASCII file with comma-separated values (.CSV file). If you already have a list of workstations identified by network number and node ID, you can edit that list and use it as the alias name file. Also, once the alias name file is established, you can import it into most database systems.

## Assigning Workstation Entries in an Alias Name file

You can add details of the workstations on the network within alias name files. This allows you to identify and arrange the workstations in the Network View window. Adding the details of the workstation, you can recognize the workstation by the alias name irrespective of whoever logs in.

Workstation entries are saved with the alias name file.

To add the workstation entries within an alias name file, follow these steps:

Procedure



1. **Select the alias name file or group in which you want to branch from.**
2. **Choose Edit > Insert.**
3. **Enter the Device Name.**
4. **Select the Workstation Entry from the list of Device Types.**
5. **Enter the following details of the workstation: Node address, IPX Network Address, IP Name, and IP Address.**
6. **Check the Windows NT machine box to specify a Windows NT workstation.**
7. **Check the Z.E.N.works Agent box to specify a Z.E.N.works workstation. Also, specify the Workstation DN and Tree details of the Z.E.N.works workstation.**
8. **Choose Ok.**

To modify the workstation details within an alias name file, follow these steps:

Procedure



1. **Select the alias name file or group in which you want to branch from.**
2. **Choose Edit > Modify.**

3. **Select the Workstation Object from the list of Device groups.**
4. **Edit the workstation settings.**
5. **Choose Ok.**

## Changing Server Connections

Some objects you need to manage are found on servers that you do not always attach to. You can change your NetWare server connections from Desktop Manager.

Changing server connections, follow these steps:

Procedure



1. **Expand the Unattached Servers group.**
2. **Double-click the server to which you want to attach.**
3. **Enter your username and password.**
4. **Click OK.**

Or

Procedure



1. **Select *File > Server Connections*.**
2. **In the Resources list, select the server or tree you want to attach to.**
3. **Enter your username and password.**
4. **Click the Attach button.**
5. **Click Close.**

To detach from a server,

Procedure



1. **Select a server from the object tree.**
2. **Select *File > Detach from File Server*.**



## Customizing the Toolbar

The Desktop Manager toolbar provides quick execution of the options you use most. You can configure which buttons (if any) you want to show, where the toolbar is placed, and whether the tool tips appear with the buttons.



To configure the toolbar, follow these steps:

Procedure



1. From the Desktop Manager network view window, select **View>Configure toolbar**.
2. Click buttons from the Available Buttons list, and click the add (>>) button.
3. Use the Separator to group buttons on the toolbar.
4. Change the order of buttons by clicking a button and clicking the Move Up and Move Down buttons, or by dragging and dropping inside the Toolbar Buttons list.
5. To set the toolbar back to the previous configuration, click Reset.
6. Click Close to finish customizing the toolbar.

# 3 **Controlling Servers and Workstations**

You can control workstations and servers anywhere on a LAN or WAN by using ManageWise® Desktop Manager software. You can also restart workstations and transfer files to and from a workstation's local drive.

You can control Windows, DOS, and OS/2 workstations and NetWare® servers using Desktop Manager. Workstations don't need to be logged in to the network to be controlled as long as they have IPX™ software and the network shell loaded. A workstation can be controlled by only one operator at a time.

This chapter contains the following sections:

- ◆ “Controlling Workstations” on page 17
- ◆ “Chatting with Another Workstation” on page 26
- ◆ “Transferring Files” on page 27
- ◆ “Securing Remote Access” on page 29

## **Controlling Workstations**

The following table lists the Desktop Manager functions available for supported platforms and protocols.

**Table 3-1**  
**Desktop Manager Functions**

	IPX	Microsoft NetBIOS, IPX, TCP/IP, NetBEUI	Winsock TCP/IP
Windows 3.x, Windows 95, Windows 98, Windows for Workgroups,	Remote Control Chat File Transfer Diagnostics Reboot Inventory Anti-virus	Remote Control Chat File Transfer Diagnostics Reboot Inventory	Remote Control Chat File Transfer Diagnostics Reboot Inventory
Windows NT Workstation and Server	Remote Control Chat File Transfer Reboot Inventory		Remote Control Chat File Transfer Reboot Inventory
NetWare Server	Remote Control Inventory		
DOS	Remote Control Chat File Transfer Reboot Inventory	Remote Control Chat File Transfer Reboot Inventory	
OS/2	Remote Control Inventory		
Macintosh	Inventory		

Desktop Manager supports EGA and VGA video modes in DOS and Windows. SVGA video modes are supported in Windows and OS/2.

Workstations must have the appropriate User Agent loaded. For information on client setup, refer to *ManageWise Setup Guide*.



Your access to a particular workstation or server is restricted by your access rights defined in Desktop Manager security parameters. See "Securing Remote Access" on page 29.



To control a workstation or server, follow these steps:

1. **From the workstation where the ManageWise Console is installed, log in to the network with SUPERVISOR or ADMIN rights.**
2. **Start Windows if you have not already done so.**
3. **Double-click the ManageWise program group to open it.**
4. **Double-click the ManageWise Console icon.**
5. **From either the *View > All NetWare File Servers* window or one of the ManageWise Console maps, select a server.**
6. **Select *Tools > Desktop Manager*.**
7. **From the object tree, select the server or workstation you want to control.**
8. **Select *Tools > Control Station*.**

A representation of the workstation's screen appears on your console in a separate window called the Viewing window. Closing the window releases control of the workstation.

To release control of a workstation, follow this step:

- ◆ Close the Viewing window by clicking the upper left-hand corner of the window and selecting *Close*.

## Setting Control Options

Access the Control Options dialog box to customize the following settings in the Viewing window:

- ◆ Performance
- ◆ Keyboard commands
- ◆ Viewing controls

You can open the Control Options dialog box from the Options menu in Desktop Manager or from the Control menu of the Viewing window.

The Viewing window functions like any other window; you can minimize it and work in other applications on your workstation or use it to control another workstation.

To set the control options, follow these steps:

Procedure



1. Select **Options > Control Options**, or select **Configure** from the **Control** menu of the Viewing window.
2. Enable the options you want.
3. Click **OK**.

### Adjust Viewing Window Performance

The performance options adjust the refresh rate, graphic quality, and overall performance of the Viewing window. Table 3-2 describes the options that can be set in the Performance group box. These options are available for Windows workstations only.

Table 3-2  
Performance Options

Option	Description
Force 16 Color	Limits the Viewing window to 16 colors. This feature reduces traffic on the network and speeds up screen refreshes for the Viewing window. This option does not affect the target workstation's monitor, but it might cause slight color palette distortions in the Viewing window.
Suppress Background	Eliminates Windows wallpaper from the Viewing window. This feature reduces traffic between the two consoles and can speed up screen refreshes in the Viewing window.

**Table 3-2**  
**Performance Options**

Option	Description
Audible Packet Rate Signal	Sounds a signal on your system speaker for each packet received. This option can help you determine whether the network is slow, or whether you are receiving more packets than necessary. If the packet rate is very fast and performance is slow, try enabling the 16 Color Viewing.
Accelerated Mode	Increases the data transfer rate between the two consoles. This option does not change the refresh rate on the workstation's monitor, but it can congest the workstation's processor. Typically, Accelerated Mode is needed only if the workstation is running a DOS graphics program or if the workstation is running in Windows without WUSER.EXE loaded. For information on loading a User Agent go to "Configuring the User Agents" on page 108.

### Viewing Window of a Remotely Controlled NetWare Server

The top-right corner of the Viewing window of a remotely controlled NetWare server displays an action bar containing four buttons which function as explained in Table 3-3.

**Table 3-3**  
**Action Bar Buttons**

Button	Description
Start	You can invoke the server menu by clicking on this button. This is equivalent to the hot key sequence CTRL+ESC.
Application Switcher	You can switch between active applications by clicking on this button. This is equivalent to the hot key sequence ALT+ESC. This button is enabled when the keyboard stuffing method is set to BIOS mode.
System Key Pass Through	Enables you to set the System Key Pass Through to ON or OFF.

**Table 3-3**  
**Action Bar Buttons**

Button	Description
Navigate	When you click on this button, a navigator window is displayed with a small frame within it. You can move the frame to the required position in the navigator window, to view the same area within the actual Viewing window.

### **Adjust Keyboard Access**

The keyboard options control where Windows system hot keys take effect and which mode Desktop Manager uses while controlling a workstation. Table 3-4 explains these options.

**Table 3-4**  
**Keyboard Options**

Option	Description
Hot Keys Enabled	Enables the Control Options hot keys. The Hot Keys Enabled option has a user-defined hot key that is always enabled inside Desktop Manager.
System Key Pass Through	Passes ALT key sequences to the target workstation. When this option is enabled, system keystrokes affect the workstation only. You can define a hot key sequence for this option.
Win95 SysKey Toolbar	When this option is enabled, a system key toolbar appears to enable system keystrokes on target workstations running Windows 95.
Keyboard Stuffing	Switches keyboard stuffing methods to either BIOS or interrupt driven. If the target workstation is not picking up your keyboard commands, switch the keyboard stuffing method.

To enable the System Key Pass Through for controlling the remote stations:

1. **Choose Options>Control Options, or choose Configure from the control menu of the Viewing window.**
2. **Check the System Key Pass Through.**
3. **Alternatively, you can enable this option by pressing the following hot key sequence: CTRL + ALT + S.**

To enable the System Key Pass Through as a default option, open the LANSIGHT.INI file in the Windows directory of your local drive and find the [Defaults] section. Add the following line: SysKeyPass=ON

To specify the Keyboard Stuffing method:

1. **Choose Options>Control Options, or choose Configure from the control menu of the Viewing window.**
2. **Select the Keyboard method as either BIOS or Interrupt Key Stuffing mode.**

To specify the keyboard Stuffing method as a default option, open the LANSIGHT.INI file in the Windows directory of your local drive and find the [Defaults] section. Add the following line:

**KeyboardStuff=<Stuffing Mode>**

The Stuffing mode can be either BIOS or Interrupt.

If you are controlling the workstations with BIOS keyboard mode, the ALT key is activated along with another key. For example, to highlight the menu item, you must press ALT with the corresponding key such as ALT + F to activate the keyboard shortcut.

## **Using Window Controls**

The window options explained in Table 3-5 control the Viewing window itself and, except for the DOS Font Size, can be activated only



by pressing the hot key sequence. You can set the hot key sequences for these options.

**Table 3-5**  
**Window Options**

Option	Description
Full Screen	Sizes the Viewing window to your screen without window borders.
Refresh Screen	Refreshes the target workstation's screen.
Restart Viewer	Reestablishes the connection with the workstation and refreshes the Viewing window.
Stop Viewing	Releases control of the target workstation.
DOS Font Size	Adjusts the font size of DOS non-graphics text.
Win95 System Key Bar	Simulates system keys on the target workstation through a floating toolbar.

### Customizing the Control Options Hot Keys

Many of the control options have preset hot key sequences displayed in the Hot Key edit fields. You can edit these hot key sequences to fit your needs. The hot keys enable you to change the control options without opening the Control Options dialog box.

Note



Special notice must be given to hot key combinations that include the right or left Shift keys. Some hot key combinations require the left Shift key and others require the right Shift key. Left and right Shift keys are indicated in the Control Options dialog box as Lshift and Rshift.

To define a custom hot key sequence, follow these steps:

Procedure



1. **Select *Options > Control Options*, or select *Configure* from the Viewing window's Control menu.**
2. **Select the hot key sequence you want to change.**
3. **Press the keys you want for the hot key sequence.**
4. **Click OK.**

## User Agent Status History Record

The Status History window records User Agent packet exchanges between the operator's workstation and remote workstations. The Status History window can help you diagnose where and why a procedure went wrong, or it can keep you updated on the status of the User Agent. You can open the status history under the View menu or from the Control menu of the Viewing window.

To view the Status History window

- ◆ Select *View > Status History*.

Or

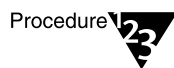
- ◆ From the Viewing window's Control menu, select *Status History*.

## Restarting Workstations Remotely

If you change the configuration of a workstation during a control session, you might need to restart the workstation for the changes to take effect.

When you restart a workstation, you lose control of the workstation until the User Agent loads again. Once the workstation's icon appears in the object tree with the User Agent magnifying glass over the monitor, you can select the workstation and select *Tools > Control Station* to regain control of the workstation.

To restart a target workstation remotely, follow these steps:



- 1. From the Network View window, select the workstation to be restarted.**
- 2. Select *Tools > Reboot Station*.**
- 3. Click Yes to reboot the workstation.**

## Running Programs on Remote Workstations

The Run Program command of the Network View window enables you to start programs on DOS or Windows workstations. The program must be in the client workstation's path.

For DOS workstations with POPUPTS.R.EXE loaded, you can run a program on the workstation without closing the workstation's current program. The original program is returned to memory after the Run Program closes.

For example, when you use Run Program to run a virus or inventory scan on a DOS machine, Run Program swaps out the current program, executes the program you specify, and restores the original program on the workstation.

To run a program on a remote workstation, follow these steps:

Procedure

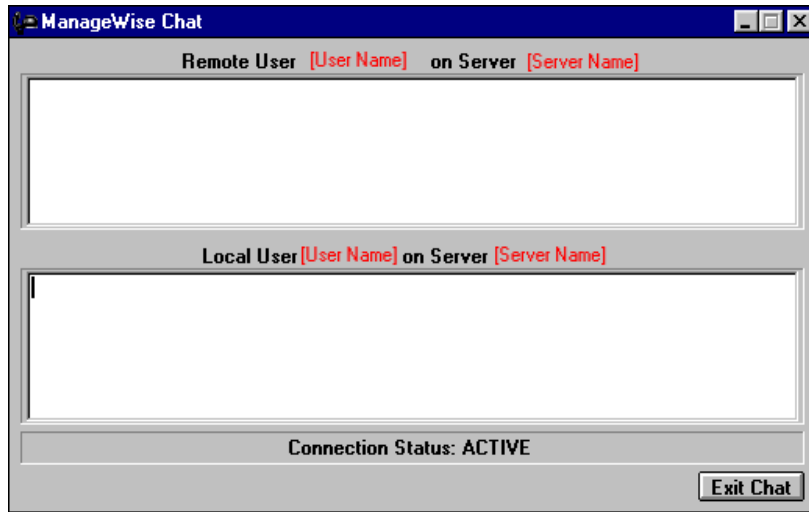


1. **Select a workstation from the object tree that has the User Agent loaded.**
2. **Select *Tools > Run Program*.**
3. **Enter the path for the program you want to run on the target workstation (the program must be in the target workstation's path).**
4. **Click OK.**

## Chatting with Another Workstation

The Chat window opens a dynamic connection with a DOS or Windows workstation, or you can use Chat as a real-time mail option.

In the Chat window, the messages you type are shown in the bottom box. Responses from the user with whom you are communicating are shown in the top box. Both boxes are updated dynamically.



To chat with another workstation, follow these steps:

Procedure



1. **Select a DOS or Windows workstation from the object tree.**
2. **Select *Tools > Chat With User*.**
3. **Type a message.**
4. **Click Exit Chat when you are done.**

## Transferring Files

With the File Transfer utility, you can move files between your workstation and any DOS or Windows workstation listed in the object tree that has the User Agent loaded. You can also create directories on either workstation from the File Transfer window and move files into the new directories.

In the File Transfer window, your workstation's path appears in the Operator field. The target workstation's path appears in the Target field. You can copy files within the paths of either workstation.

Table 3-6 explains the function of the File Transfer window buttons.

**Table 3-6**  
**File Transfer Window Buttons**

Button	Description
Select All	Selects all the files in the current directory for the appropriate workstation.
Cancel All	Cancels all file and directory selections made in the File Transfer window.
Copy	Copies selected files to the indicated workstation.
File Masks	Opens a dialog box to filter files by file extension.
Cancel	Cancels the file transfer in progress. Does not close the File Transfer window.
Exit	Closes the File Transfer window.

To transfer files between workstations, follow these steps:

Procedure



1. **Select a workstation from the object tree.**
2. **Select *Tools > Transfer Files*.**
3. **Select the files you want to copy from the drive and directory on your workstation.**
4. **Select the drive and directory where you want the files to go, on the target workstation.**
5. **Click the Copy button.**
6. **Click Exit.**

To create a new directory using File Transfer, follow these steps:

Procedure



1. **Select the drive and directory for the workstation where the new directory will be placed.**
2. **Select `make dir` in the directory list box.**

3. In the Make Directory dialog box, enter the name of the directory.
4. Click OK.

## Filtering the Directories

File masks can be set to display only specified files or extensions. You can specify as many masks as you want. The wildcard characters \* and ? are valid for file masks.

To set file masks for File Transfer, follow these steps:

Procedure

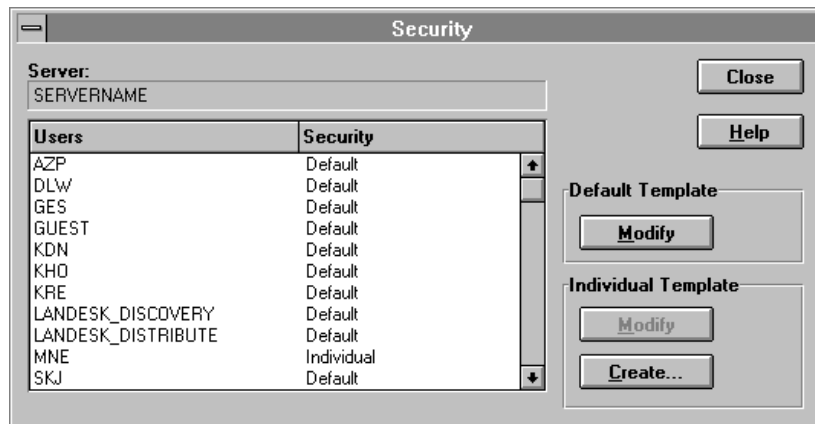


1. Click the File Masks button.
2. Click Add to include an extension on the mask list.
3. Enter a filename or extension in the Mask text box.
4. Click OK, which adds your entry to the Current Masks list.
5. Repeat Steps 2 through 4, as necessary.
6. Click OK.

## Securing Remote Access

The Security dialog box lists each user account for the selected server or NDS™ context. The Security column indicates the type of template each user receives when logging in to the server or context. In a NetWare 4™ environment, the default security template that an organizational unit (OU) users might reside in a higher-level organization. If you open the Security dialog box in a NetWare 4 environment, both the context of the users listed and the context of the default security template are shown.

The Security dialog box for NetWare 3.1x environments follows.



From the Security dialog box, you can edit the default security parameters for the selected server or context and the individual template for the selected user. You can also create an individual template for any user that has an account on the selected server or context.

## Securing NetWare Access

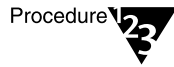
Desktop Manager offers three levels of operator security in NetWare environments:

- ◆ The server supervisor or NDS administrator can set all security parameters.
- ◆ Operators with SUPERVISOR or ADMIN equivalent rights can set security parameters if the supervisor grants them rights to modify security templates.
- ◆ Operators can define their own remote security parameters.

The security templates apply to Windows 3.x, Windows 95, and Windows 98 workstations only. The workstations are secured by a default, individual, or remote security template. The default template applies to users who don't have an individual template on the server or in the context they logged in to. Individual templates are custom settings that apply to a particular user for the specified server or within

an NDS context. Remote templates are for remote users who have customized access requirements.

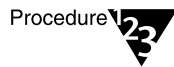
To open the Security dialog box in a NetWare 3™ environment, follow these steps:



1. **Select a server in the object tree.**
2. **Select *Options* > *Security*.**

For NetWare 4 environments, default security templates are defined at the OU level. If an OU does not have a default template defined, its default security is taken from a higher level organization. Because of this layered structure of security, you can create and delete default templates for OUs in a NetWare 4 environment.

To open the Security dialog box in a NetWare 4 environment,



1. **Select an organization or user in the NDS tree.**
2. **Select *Options* > *Security*.**

## Setting Security Parameters

The security templates apply to Windows 3.x, Windows 95, and Windows 98 workstations only. You can configure a default security template for each server on the LAN and for organizations in an NDS tree. You also can create an individualized security template for any user on the LAN.

Users who log in to a server or NDS tree but don't have an individual template defined there receive the default template. Users who have individual templates defined for the server or organization they log in to receive their individual templates.



Table 3-7 describes the parameters available for the security templates.

**Table 3-7**  
**Security Template Parameters**

Parameter	Description
SUPERVISOR Equivalent	Allows operators with SUPERVISOR or ADMIN equivalent rights to adjust the security parameters.
User	Allows the user to adjust the template.
User Permission Required	Requires the operator to receive permission from the user to access the screen.
Audible Signal	Sounds an alert every 10 seconds while the workstation is being accessed.
Display Wheel	Enables spinning wheel display in the upper right-hand corner of a DOS client workstation while the workstation is being accessed. In the case of Windows 95 workstations, the display appears as an icon (Being Viewed) on the Task Bar. On Windows 3.x workstations, the display icon can be enabled or disabled.
Display "Being Accessed" Icon	Displays the remote control icon at the Windows target workstation when the workstation is being accessed.
Password of User Required	Requires the operator to enter a password to access workstations that use the server default security. The password is the password of the user listed in the list box. This option is explained in "Defining a Password" on page 36 later in this chapter.

Note



You can make changes only to templates that you have rights to change. If you don't have rights to adjust the default security parameters for the server or tree you select, you can only view the current template configuration.

To set security parameters, follow these steps:

Procedure



- 1. Select a server or an object connected to the server from the object tree, or select a context from the NDS tree.**
- 2. Select *Options > Security*.**

3. Click the **Modify** button in the **Default Template** group box or **Individual Template** box to modify the template.
4. Select the options you want in the **Default Security Parameters** dialog box.
5. Click **OK**.
6. Close the **Security** dialog box. Changes take effect the next time the **User Agent** loads.

To create an individual security template, follow these steps:

Procedure



1. From the **Network View** window, select a server or an object attached to the server where the individual security template is to take effect.
2. Select **Options > Security**.
3. Select a user from the **Users** list.
4. In the **Individual Template** group box, click the **Create** button.
5. In the **Individual Security Parameters** dialog box, select the parameters you want.
6. Click **OK**.
7. Close the **Security** dialog box. Changes take effect the next time the **User Agent** loads.

To return a users's security to the default security template, follow these steps:

Procedure



1. From the **Network View** window, select a server or an object attached to the server where you want to modify the individual security template.
2. Select **Options > Security**.
3. Select a user from the **Users** list.
4. In the **Individual Template** group box, click the **Modify** button.

5. In the Individual Security Parameters dialog box, click the Default button. Changes take effect the next time the User Agent loads.

Default templates might be defined at a higher level organization than the one the user resides in. The Security dialog box displays the context of the default template and the organization you are currently viewing (current context). You can change the current context for the Security dialog box without exiting the dialog box.

To change the current NDS context for the Security dialog box, follow these steps:

Procedure



1. In the Security dialog box, click the Browse button.
2. In the Organization Browser, select the organization you want to display in the Security dialog box.
3. Click OK.

## Security for DOS workstations

The configuration program for DOS workstations(DOSCFG.EXE) copies the file, LDCLIENT.INI under the MWCLIENT directory on the workstation. You can edit this file to set the security parameters such as allowing access or permission required.

Sample LDCLIENT.INI file is as follows:

[ SIGHT ]

VISIBLE SIGNAL=YES

AUDIBLE SIGNAL=NO

PERMISSION REQUIRED=NO

Table 3-8 describes the parameters available for the security templates.

**Table 3-8**  
**Security parameters for DOS workstations**

Parameter	Description
User	Allows the user to adjust the template.
User Permission Required	Requires the operator to receive permission from the user to access the screen.
Audible Signal	Sounds an alert every 10 seconds while the workstation is being accessed.
DOS Diagnostics	Enables check of the workstation's memory map, device drivers, etc.
Display Wheel	Enables spinning wheel display in the upper right-hand corner of a DOS client workstation while the workstation is being accessed.
Display "Being Accessed" Icon	Displays the remote control icon at the Windows target workstation when the workstation is being accessed.
Password of User Required	Requires the operator to enter a password to access workstations that use the server default security. The password is the password of the user listed in the list box. This option is explained in "Defining a Password" on page 36 later in this chapter.
Permission Required	Enables confirmation from the user, before operator can perform any of the above operations on the remote workstation.

### **Security for Windows NT workstations**

The level of access for Windows NT workstations can be controlled using the Agent Security utility under the MANAGEWISE group by the logged in user. The Agent Security utility is installed on the Windows NT workstations when it is configured for ManageWise. This utility enables you to select or deselect the management features to be allowed on the Windows NT workstations.

Table 3-9 describes the security parameters for Windows NT workstations.

**Table 3-9**  
**Security Parameters for Windows NT workstations**

Parameter	Description
Remote Control	Enables control of the workstation.
Remote Reboot	Enables reboot of the workstation.
Audible Signal	Sounds an alert every 10 seconds while the workstation is being accessed.
Remote File Transfer	Enables file transfer to and from the workstation's local drives.
Chat	Enables chat with the workstation.
Remote Execute	Enables program execution on the workstation.
Ping Test	Enables test of the workstation's network performance by sending network packets to the station as fast as possible.
Display "Being Accessed" Icon	Displays the remote control icon at the Windows target workstation when the workstation is being accessed.
Permission Required	Enables confirmation from the user, before operator can perform any of the above operations on the remote workstation.

### Defining a Password

You can define a password for the security templates. When the Password option is enabled, the password of the specified user is required of Desktop Manager operators attempting to access the workstation or workstations that use the security template.

For tight security, Desktop Manager displays only the name of the user whose password acts as the default password. This protects the password itself from being displayed in Desktop Manager. You can create a special account that is not used by any users on the network and assign a password to the account to avoid jeopardizing the password of a user.

To create a fictitious user for Desktop Manager security, follow this step:

- ◆ Create a new user with the NetWare SYSCON or NWADMIN utility.

To select a user whose password will act as the default password, follow these steps:

Procedure



1. **Select a server or an object connected to the server from the object tree.**
2. **Select *Options > Security*.**
3. **Check the Password of User Required check box.**
4. **Select a user from the drop-down user list or, for the NDS tree, click the Browse button to specify the context of a user.**
5. **Click OK.**
6. **Close the Security dialog box.**

### Editing the Access Rights List

The access rights list prevents the operators listed in the Exclude list box from accessing workstations that use the security template. Operators listed in the Included list box can access workstations according to the security parameters specified in the Grant Modify Rights To and Settings group boxes.

Note



An empty Included list box is the default setting and includes all users.

To edit the access rights list in a NetWare 3.1x environment, follow these steps:

Procedure



1. **Select a server or an object connected to the server from the object tree.**
2. **Select *Options > Security*.**
3. **Click the Modify button for the template you want to modify.**

4. **Place the users you want to have access to the workstation in the Included box.**
5. **Click OK.**
6. **Close the Security dialog box. Changes take effect the next time the User Agent loads.**

In the NetWare 4 environment, you can include users from other OU in the access rights list.

To edit the access rights list in a NetWare environment, follow these steps:

Procedure



1. **Select a context in the NDS tree.**
2. **Select *Options > Security*.**
3. **Click the Modify button for the template you want to modify.**
4. **Move any users that you want included in the access rights list to the Included box.**
5. **To include users from other contexts, click the Browse button in the Access Rights List group box.**
6. **Select the organization you want to display in the Exclude box of the Access Rights list.**
7. **Click OK.**

## Logging Remote Access

Desktop Manager maintains a log of all the access activity on your network. The log indicates the usernames of the operator and the user logged in at the target workstation, the addresses of both workstations, and the time and date the control session began. The log cannot be edited. When the log reaches 1 MB, USER.NLM automatically deletes the oldest 0.5 MB of the file.

The Remote Control Log is part of USER.NLM, the User Agent loaded on a server. Each server with USER.NLM loaded tracks the remote control activity for the workstations that are logged in to the server (that

is, use the server as their primary server). If you want to maintain a Control Log and don't want the server to be controlled, you can run USER.NLM on the server without allowing viewing of the server. For information on loading the Remote Control Log, see Chapter 6 "Configuring USER.NLM and the Remote Control Log" on page 108.



Note

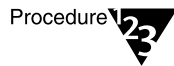
For users who load USERTSR with the SERVER= parameter, the Remote Control Log is located on the server indicated after the equal sign. From the object tree, select the server that maintains a Control Log.

Select *View > Remote Control Log*.

## Terminating Operator Control from the Client Workstation

A user at the target workstation can terminate an operator's control of the workstation by unloading the User Agent.

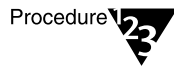
To unload the Windows User Agent on a Windows 98 or Windows 95 workstation, follow these steps:



Procedure

1. **Select the Remote Control Agent item on the taskbar.**
2. **Click Terminate Viewer.**

To unload the Windows User Agent on a Windows 3.x machine, follow these steps:



Procedure

1. **Press CTRL+ESC to open the Windows Task List.**
2. **Select *WUSER Agent* from the Task List.**
3. **Click the End Task button.**

To unload the Windows NT User Agent on a Windows NT workstation machine, follow these steps:

1. **Select *Control Panel> Services> Novell User Agent*.**
2. **Click the Stop button.**

To unload the DOS User Agent, follow this step:

- ◆ At the DOS prompt, enter **USERTSR REMOVE**.



To unload the OS/2 User Agent, follow this step:

- ◆ At the system prompt, enter **USEROS2.EXE**.

## 4 *Reporting Inventory Information*

Managewise® Desktop Manager software maintains inventory information for the servers, workstations, and products on your network. You can create reports of inventory information within Desktop Manager or by exporting the inventory information to .CSV format.

This chapter contains the following sections:

- ◆ “Displaying Inventory Information” on this page
- ◆ “Querying the Inventory Database” on page 45

### Displaying Inventory Information

You can display inventory information in the Network View window for the devices listed in the device tree. The inventory data is displayed in columns, similar to a spreadsheet.

### Launching Desktop Manager

You need to have the Desktop Manager utility running to view inventory database information.

To launch Desktop Manager, follow these steps:

Procedure



1. **At the ManageWise Console, log in to the network with SUPERVISOR or ADMIN rights or equivalencies.**
2. **Start Windows if you have not already done so.**
3. **Open the ManageWise program group.**
4. **Double-click the ManageWise Console program icon.**

5. From either the **View > All NetWare File Servers** window or one of the ManageWise Console maps, select a server or network object.

6. Select **Tools > Desktop Manager**.

For steps on starting the ManageWise Console, go to “ManageWise Basics” in the *ManageWise Setup Guide*.

## Choosing an Inventory Database

To view inventory information, Desktop Manager must be connected to an inventory database. Desktop Manager recognizes only one inventory database at a time. If your network requires inventory records to be kept on multiple servers, you may have to switch inventory databases occasionally or merge several databases into one. Desktop Manager automatically opens the inventory database you were using when you closed the application.

To use a database, you must be attached to the server where it is located. Select the database you want to use from the Select an Inventory Database dialog. This dialog lists only the servers that have LDINV.NLM loaded. Yellow database icons indicate which servers you are currently attached to, and gray database icons indicate servers you are not attached to.

For information on creating and opening merged databases, see Chapter 6, “Customizing Desktop Manager.”

To select a new inventory database, follow these steps:

Procedure



1. Select **Options > Inventory Database**.
2. Select a database from the Inventory Database dialog box.
3. If you are not attached to the server where the database is located, enter your user information in the Attach to File Server dialog and click OK.
4. Click OK.

## Selecting Display Information

You can select from thousands of hardware and software components to display in the Network View window. You can also save the sets of columns you create and call them up later to print reports or to modify the set.

To select display information to view, follow these steps:

Procedure



1. Select **View > Columns**.
2. Drag and drop the items you want to display into the **Displayed Components box**, or select components and click the **Add >>** button.
3. In the **Setting Name** drop-down list box, type a name for the set.
4. Click **Save**.
5. Click **OK**.

To delete a column set, follow these steps:

Procedure



1. Select **View > Columns**.
2. Select a column set from the **Setting Name** drop-down list box.
3. Click **Delete**.
4. Click **Yes**.
5. Click **OK**.

To open a column set, follow these steps:

Procedure



1. Select **View > Columns**.
2. Select a column set from the **Setting Name** drop-down list box.
3. Click **OK**.
4. The column set you open replaces any set currently in use in the Network View window.

## Positioning and Sizing Columns

The columns are ordered left to right in the Network View window based on the order in the Displayed Components box. You can reorder the columns in the Column Configuration dialog or directly from the Network View window.

To reposition a column, follow one of these steps:

- ◆ In the Column Configuration dialog, drag and drop the column into a new position in the Displayed Components box.

Or

- ◆ In the Network View window, select a column header and drag and drop the column to a new position.

By default, the column is sized according to the width of the text in its header. You can resize the columns in the Network View window. When you save the column set, Desktop Manager records the position and width of each column.

To resize a column, follow this step:

- ◆ Drag the column header separator.

## Sorting and Arranging Columns

You can sort the device tree by any attribute displayed in the columns. For example, if one column displays processor speeds, you can sort the devices shown in the device tree by the speed of their processors.

The sort function reorganizes the devices in each group according to the attribute you select. The sorting order is from low to high, A to Z. The sorted column is indicated by bold face text in the column header.

To sort the device tree by an inventory attribute, follow this step:

- ◆ Double-click the column header displaying the attribute you want to sort by.

To sort the device tree by user and device names, follow this step:

- ◆ Double-click the Devices column header.

## Querying the Inventory Database

You can query the inventory database to create groups of similar devices. Devices that meet the query criteria appear as a group on the device tree under the Query Results icon.

Forming query groups helps you focus your reports on specific types of machines. For example, you can query the database to find machines that have an i486D processor and a VGA card.

The Query Criteria dialog box provides the syntax for you. Just select the hardware and software components you want and select from available values.

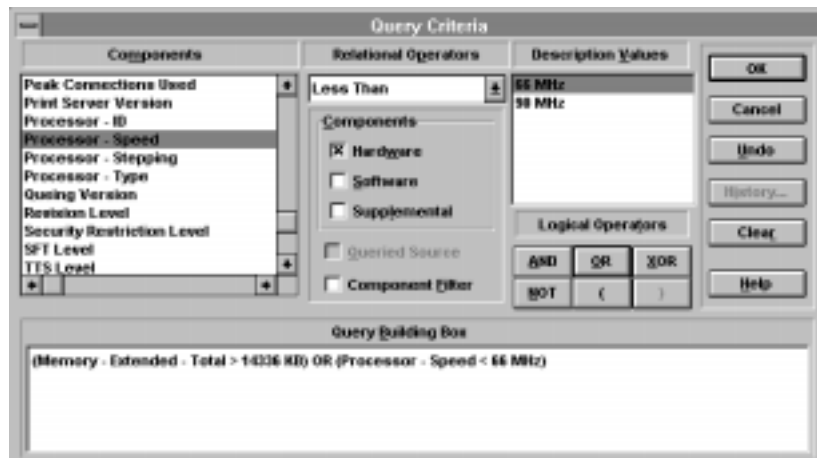


Table 4-1 describes the controls in the Query Criteria dialog box

**Table 4-1**  
**Query Criteria**

Item	Description
Components	List of attributes available for the scan.
Relational Operators	The relation between the Component and the Value (greater than, equal to).
Description Values	The value of an inventory component. For example, "6.0" is a possible value for "DOS - Version."
Logical Operators	Connectors that enable you to combine query expressions.

To form a query, follow these steps:

Procedure



1. **Select the database you want to query (See "Choosing an Inventory Database" on page 42)**
2. **Select *Tools* > *Query*.**
3. **In the Components box of the Query Criteria dialog box, select the component you want to query for.**
4. **Select a relational operator.**
5. **From the Description Values list, select a value.**
6. **Select a logical operator.**
7. **If you want to query for more than one component, repeat Steps 3 through 5.**
8. **When you are satisfied with the query expression displayed in the Query Building box, click OK.**
9. **The Query Criteria dialog box closes and the devices that qualify for the query appear as a group under the Query Results icon on the device tree.**

Important



Query results groups are not saved when you exit Desktop Manager. To save the contents of a query results group, copy the contents to an alias name file.

## Writing Query Expressions

You can write your own queries or edit the query expression shown in the Query Building box. Use the following conventions for writing query expressions.

Component names and logical operators are case-sensitive according to the name assigned in the Components box. For example, EISA cannot be entered as eisa.

Description values are not case-sensitive, so vga color is the same as VGA Color. The value you enter must match a value from the Description Values box.

## Using Relational Operators

Eight relational operators are available in Desktop Manager's Query Building box. The Relational Operators drop-down list shows the operators in their long form. The Query Building box displays operators in their short form.

If you edit the operators in the Query Building box, be sure to use the appropriate form given in Table 4-2.

**Table 4-2**  
**Relational Operators**

Long Form	Short Form
Equal To	=
Less Than	<
Greater Than	>
Less Than Or Equal To	<=
Greater Than Or Equal To	>=
Not Equal To	<>
Exists	EXISTS



**Table 4-2**  
**Relational Operators**

Long Form	Short Form
Does Not Exist	DOES NOT EXIST


## Using Wildcard Characters

You can use the characters \* and ? as wildcard characters in a query expression.

- ◆ A \* character preceding a relational operator stands for any component. See the first two examples in Table 4-3.
- ◆ A \* character following a relational operator stands for any number of consecutive characters in the value of a component. See the third example in Table 4-3.
- ◆ A ? character following a relational operator stands for a single character. See the last example in Table 4-3.

**Table 4-3**  
**Wildcard Characters**

Expression	Meaning
*=3.1	Find machines that have "3.1" as the value of any of their components.
*:Company=Novell	Find machines that have the value "Novell" specified in the Company supplemental component of any hardware or software component.
DOS - version=4.*	Find machines that have a DOS version of 4 with any number of characters following the decimal.
DOS - version=5.?	Find machines that have a DOS version of 5 with any single character after the decimal point.

Note  To use \* and ? as regular characters, place a backslash before the character. For instance, "Description <>\?".

## Using Logical Operators

The five valid logical operators are described in Table 4-4. These operators are case-sensitive when used in the Query Building box.

**Table 4-4**  
**Logical Operators**

Operator	Description
AND	Both the expression before and after the AND must be true.
OR	Either the expression before or after the OR must be true.
XOR	One and only one of the expressions before or after the XOR must be true.
NOT	The subsequent expression must be false.
( )	All expressions inside the parentheses are carried out before being processed with the outer expressions.

## Using Previous Query Statements

Desktop Manager retains the last 20 unique query expressions. You can use the query history list to edit the previous query or to regenerate the results of a previously run query.

To use a previous query statement, follow these steps:

Procedure



1. From the Desktop Manager window, select **Tools > Query**.
2. Click **History**.
3. Check a query statement in the **Query box**.
4. Click **OK**.
5. Edit the expression in the **Query Building box**.
6. Click **OK**.

## Querying a Query Results Group

You can continue to query the previous query results group until you limit the group to the exact specifications you want.

For example, you could run a query to discover all devices registered in the database that have 486 processors. You could then run a query to discover which of these machines have a VGA color video adapter.

To query the results group of a previous query, follow these steps:

Procedure



1. **From the Desktop Manager window, select *Tools > Query*.**
2. **Check the Queried Source check box.**
3. **Build a new query expression.**
4. **Click OK.**

## Deleting Query Results Groups

Each query results group you create is displayed on the device tree. You can delete a query results group from the device tree.

To delete a query results group, follow these steps:

Procedure



1. **Select the Query Results icon.**
2. **Press the Delete key.**

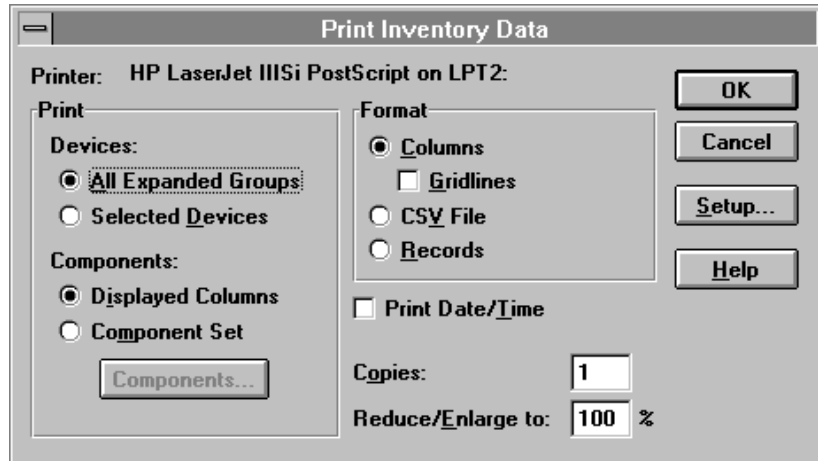
## Printing Inventory Information

You can print inventory information in three report formats directly from Desktop Manager.

- ◆ Column format prints a table of devices and columns as they appear on the screen, with any other options you set in the Print Report dialog.
- ◆ Comma-Separated Values (CSV) format is always saved to a file. Clicking OK calls up the Report Manager dialog, where you specify

the name of the file. You can then use Report Tool to create custom reports for the inventory data.

- ◆ Records format is the two-column format used in the Device Inventory dialog (under *Device > Inventory*). The device name is printed at the top of each report section, with components and values listed in two columns below.



The Print Inventory Data dialog box offers the options outlined in Table 4-5.

Table 4-5  
Print Inventory Options

Option	Description
All Expanded Groups	Prints inventory data for the devices in all groups in the device tree.
Selected Devices	Prints inventory data for the devices selected in the device tree.
Displayed Columns	Includes only the inventory components displayed in the Network View columns.
Component Set	Uses a set of components that is not shown in the Network View.

Table 4-5  
Print Inventory Options

Option	Description
Components	Opens a dialog to configure component sets. This dialog is similar to the Column Settings dialog but does not update the columns in the Network View.

To print an inventory report, follow these steps:

Procedure



1. **On the device tree, select the devices or expand the groups you want to report on.**
2. **Select *File > Print Inventory Data*.**
3. **Select a Devices option.**
4. **Select a Components option.**
5. **Select a report format.**
6. **Click OK.**

## Recording Inventory Changes

Desktop Manager can detect and record changes in hardware and software for devices on the network. You can configure the components you want to monitor for changes.

Changes are written to the CHANGES.LOG file in the directory that contains the inventory database.

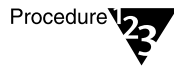
To maintain a record of inventory changes, follow these steps:

Procedure



1. **Select *Options > Configure Changes Log*.**
2. **Place the components that you want to log in the Displayed Components box.**
3. **Click OK.**

To view the Changes Log, follow these steps:



1. Select **View > Inventory Changes Log**.
2. Click the **Browse** button.
3. Open **CHANGES.LOG**.

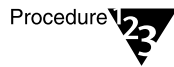
Desktop Manager records the Changes Log in the same directory from which Desktop Manager was launched.

4. Click **OK**.

Desktop Manager retains the location of the Changes Log previously viewed. If the location of the Changes Log has not changed, you don't need to browse for the log each time.

Desktop Manager uses the editor of your choice to view the Changes Log. The default editor, Microsoft\* WordPad, is included with Windows.

To change the default editor, follow these steps:



1. From the Desktop Manager window, select **Options > Changes Log Editor**.
2. Click the **Browse** button.
3. Find and select the editor of your choice.
4. Click **OK**.

## Logging Macintosh Inventory Scans

Inventory MacScan supplies Macintosh users with an inventory log of information after each inventory scan. You can select to save the log for future reference, or you can print the log.

You can save inventory logs under any filename you choose. The default name is INVENTORY MACSCAN.LOG, but you can edit the filename before you save the log. This allows you to track changes manually on your Macintosh. Changes to Macintosh information are

also registered in the inventory database on the inventory server and can be included in the CHANGES.LOG file on the inventory server.

## Saving the Current Inventory Log

To save the current inventory log, follow these steps:

Procedure



1. Select **File > Save Window**.
2. Select a location and filename.
3. Click **Save**.

## Printing Inventory Logs

To print the current inventory log, follow these steps:

Procedure



1. From the Desktop Manager window, select **File > Print**.
2. Click **Print**.

To print a previous inventory log, follow these steps:

Procedure



1. Double-click on the log in Finder.
2. Select **File > Print**.
3. Click **Print**.

## chapter **5** *Diagnosing Hardware and Software*

ManageWise® Desktop Manager enables you to view system information, such as memory and CMOS information, for workstations and servers in the device tree. Information is gathered from either the User Agent or from the inventory database. Data from the User Agent is more current than the inventory data, but the database records are often more detailed.

Use Table 5-1 to determine the types of data you can view for the clients on your network.

**Table 5-1**  
**Viewable Client Data**

Platform	Supported Data and Protocols
Windows	Inventory, Workstation Summary, and diagnostics over the IPX™ protocol
DOS	Inventory, Workstation Summary, and diagnostics over the IPX protocol
OS/2	Inventory over the IPX protocol

### **Viewing Summary Information**

The Workstation Summary window lists general statistics about the client workstation. You can view this information dynamically if the User Agent is loaded on the workstation or, if you are attached to an inventory server, you can view the same information taken from the inventory records.

For details on attaching to an inventory server, refer to “Reporting Inventory Information” in this guide.



To view summary information for a workstation, follow these steps:

Procedure



1. From the workstation where the ManageWise Console is installed, log in to the network with SUPERVISOR or ADMIN rights or equivalencies.
2. Start Windows if you have not already done so.
3. Double-click the ManageWise program group to open it.
4. Double-click the ManageWise Console icon.
5. From either the *View > All NetWare File Servers* window or one of the ManageWise Console maps, select *Tools > Desktop Manager*.
6. Double-click a workstation in the device tree.

For steps on starting the ManageWise Console refer to, “ManageWise Basics” in the *ManageWise Setup Guide*.

Figure 5-1  
Inventory Summary  
Window

The screenshot shows a window titled "Workstation Summary" with a blue header bar. The window is divided into several sections:

- Hardware Information:**
  - Machine Type: Compaq Deskpro 66M
  - CPU Type: 486 DX 66 MHz
  - Math Coprocessor: Internal
  - Bus Type: EISA
  - Video Adaptor: VGA Color
- Software Configuration:**
  - Mouse: PS/2
  - BIOS Date: 10/15/92
  - OS Version: DOS v6.00
  - Shell Version: 4.20 Rev A
  - Long Machine
  - Short Machine
- Memory:**
  - Conventional: 640 KB
  - Extended: 15232 KB
  - Expanded:
  - Base:
- Ports:**
  - COM1: 3F8H
  - COM2:
  - COM3:
  - COM4:
  - LPT1: 3BCH
  - LPT2:
  - LPT3:

At the bottom of the window, there is a checkbox labeled "Use Inventory Data" which is checked, and a "Scan Date:" field showing "Jun 19 13:54:18 1996".

You can also call up the Workstation Summary windows by selecting a workstation in the device tree and then selecting *Device > Summary* or pressing Enter.

To display inventory data in the Workstation Summary Window, follow this step:

- ◆ Check the Use Inventory Data check box.

The scan date indicates when the information was gathered.

**Hardware Information**

The Hardware Information group box in the Workstation Summary window contains an overview of the hardware installed at the client workstation. For a full inventory of a client workstation, refer to the Device Inventory dialog box (refer to “Determining Hardware and Software Configuration” later in this chapter).

Table 5-2 explains the items in the Hardware Information group box.

**Table 5-2**  
**Hardware Information**

Field	Description
Machine Type	The PC type. Supported types include PC/AT*, PC/XT*, and PS/2*. If Desktop Manager cannot discover any model type, it lists the model number and submodel number.
CPU Type	The type of processor. Please refer to the online Help for specific processor types discovered by Desktop Manager.
Math Coprocessor	The type of math coprocessor on the workstation, if any.
Bus Type	The bus type of the workstation's mother board. Four bus types might appear in this field:  Industry Standard Architecture (ISA), Micro Channel Architecture (MCA), Extended Industry Standard Architecture (EISA), or Peripheral Component Interface (PCI).

Table 5-2 *continued*

## Hardware Information

Field	Description
Video Adapter	<p>Desktop Manager recognizes the following video adapter types: Monochrome, CGA Color, MCGA Monochrome, MCGA Color, Hercules, Hercules Plus, Hercules InColor, EGA Color, EGA Monochrome, PGA Color, VGA Color, and VGA Monochrome.</p> <p>If Desktop Manager does not recognize the video adapter, it is listed as one of the supported types, generally as "Monochrome."</p>

## Software Configuration

The Software Configuration group box in the Workstation Summary window displays the client workstation's DOS, NetWare® operating system, BIOS, and mouse driver configuration, as described in Table 5-3.

Table 5-3

## Software Configuration Group

Field	Description
Mouse Support	The type of mouse driver installed on the client workstation.
BIOS Date	The date of the ROM BIOS version.
OS Version	The operating system and version running on the workstation.
Shell Version	The version and revision number of the NetWare Shell running on the workstation.
Long Machine Name	The variable set in the SHELL.CFG file on the boot disk. This name is frequently used in log in scripts to set different search paths for different computers.

Table 5-3 *continued***Software Configuration Group**

Field	Description
Short Machine Name	The variable set in the SHELL.CFG file on the boot disk. This name can be used in log in scripts to select the correct overlay file for windowing programs and to select the type of DOS to use.

**Memory**

The Memory group box in the Workstation Summary window contains an overview of the memory installed at the client workstation. The *Device > Memory Map* or the Device Inventory dialog box provide additional memory information described in Table 5-4.

Table 5-4

**Memory Information**

Field	Description
Conventional Memory	The amount of conventional memory. Conventional memory is the memory that DOS accesses directly for its processing tasks. Every DOS-based workstation has up to 640 KB of conventional memory.
Extended Memory	The amount of extended memory (XMS). Extended memory is the main memory above 1 MB that has not been configured as extended memory.
Expanded Memory	The amount of expanded memory (EMS). Expanded memory is memory above 1 MB that can only be used by applications that support one of the expanded memory specifications.
Base	The base address (in hex) of the area in memory that has been reserved by an expanded memory manager (EMM), if any. The size of this area and its starting address depend on what type of EMS driver is installed, how much EMS is installed, and what other programs are loaded in conventional memory.

## Ports

The Printer Ports group box displays all serial and parallel ports on the target workstation and their addresses. If the workstation uses a port as a LANSpool\* node, Desktop Manager indicates this next to the port name.

## Determining Hardware and Software Configuration

The Device Inventory dialog box lists the hardware and software components found on the network device and the notes you have entered for each component. You can also view information taken from Management Information Format (MIF) files on a workstation. Information taken from MIF files is displayed under the MIF entry.

Depending on how you configure your inventory scan, the Device Inventory window can display information on hundreds of products for each workstation.

The information in the Device Inventory window is recorded during login or startup of the workstation or recorded by the time set for a server.

To view a device's inventory, follow these steps:

Procedure



1. **Select a device from the device tree in the Desktop Manager window.**
2. **Select *Device > Inventory*.**

## Creating Views and Filters

Desktop Manager keeps data on thousands of components, so limiting the products displayed to a reasonable number can be useful. You can use two types of filtering to do this: filtering by type and creating custom filters.

## Filtering by Type

You can filter hardware, software, and custom information from the Device Inventory window. You also can limit the view to display only configuration files.

To filter the Device Inventory views by preset types, follow this step:

- ◆ Clear the appropriate check boxes in the Show group box.

## Creating Custom Filters

The Custom view enables you to filter the inventory list across component types. These filters can simplify viewing inventory data.

You can save a set of selected components the same way you save column sets.

To create a custom filter for the Device Inventory dialog box, follow these steps:

Procedure



1. Select **Device > Inventory from the Desktop Manager window**.
2. Click the **Selected Option's Define** button.
3. Place the components you want to view in the **Displayed Components** box.
4. Click **OK**.

To apply a custom filter to the Device Inventory window, follow these steps:

Procedure



1. In the **View Components** group, click the **Selected option's Define** button.
2. Select the filter from the **Setting Name** box.
3. Click **OK**.

## Determining Hardware and Software Components

Notes enable you to attach reminders or important information to hardware and software components on a machine. For example, you can attach a note titled “Purchase Date” to the Machine entry in the device inventory list. This helps you to customize the database and keep track of data that the scanning program can’t detect.

A note requires a title and a description, each up to 80 characters. To save time entering information, you can reuse note titles and descriptions. For example, you can create a note titled “Serial Number” and use its title whenever you want to enter serial number information for hardware or software components.

There are three default notes: the hardware scan date, the software scan date, and the number of copies. The scan dates display the date of the last hardware and software scans. The software scan date is also used to determine when the next scan occurs. If the inventory scan is running with the Duplicate option set to ON, the number of copies entry indicates how many instances of an executable file were discovered on the device. See “Editing the LDAPPL.INI File in an Editor” in Chapter 6.

To add custom component information to the database, follow these steps:

Procedure



1. **Select a device from the device tree in the Desktop Manager window.**
2. **Select *Device > Inventory*.**
3. **Check the Notes check box.**
4. **From the Component list, select the hardware or software component to which you want to attach a note.**
5. **Select the Edit Notes button.**
6. **In the Update Note box, select an existing title or enter a new title.**
7. **In the Description drop-down list box, enter a new description or select an existing description.**
8. **Click the Update button.**

**9. Repeat Steps 4 through 8, as necessary.**

**10. Click Close.**

## **Removing Notes from Inventory Components**

You can remove a note from a hardware or software component on a single device or from similar components on all devices. If you select to remove notes from all devices, notes are removed only if they have the specified title and are attached to the same type of component on other machines.

For example, if “Serial Number” is a title for notes attached to the Machine and Modem components on several workstations and you remove all “Serial Number” notes from the Machine component, the “Serial Number” notes on the Modem component remain attached.

You can also remove similar notes by their description. For example, if notes titled “Purchase Date” are attached to components of several machines, you can remove “Purchase Date” notes for a specific date or you can delete all notes that have “Purchase Date” as their title.

To remove notes from inventory components, follow these steps:

Procedure



- 1. In the Device Inventory dialog box, check the Notes check box.**
- 2. From the Component list, select the hardware or software component to which the notes you want to delete are attached.**
- 3. Click Edit Notes.**
- 4. In the Note Editor dialog box, select to remove the note from the current device or from all devices.**
- 5. If you want to remove all notes with the same title, regardless of description, select All Values.**
- 6. Select the titles of the notes you want to remove.**
- 7. Click Remove.**
- 8. When you are finished, click Close.**



## Managing Configuration Files

You can set the inventory database to store as many revisions of a workstation's configuration files as you select. The inventory scan checks the dates of the files when it scans the software and stores the contents of the file whenever the file date changes.

Note



Increasing the number of configuration revisions will increase the size of your inventory database. To preserve data storage capacity, reduce the number of revisions maintained by the inventory database.

To specify the number of file revisions to maintain on the database, follow these steps:

Procedure



1. **Select *Options > Software Scanning*.**
2. **In the Configuration Files box, type the number of revisions you want the database to store for each file.**
3. **Click OK.**

To view revisions of a workstation's configuration files, follow these steps:

Procedure



1. **Select the device from the device tree in the Desktop Manager window.**
2. **Select *Device > Inventory*.**
3. **Select the *Cfg. Files Only* option.**
4. **Double-click the file (Cfg. entry) you want to view.**
5. **Select a revision you want to display.**
6. **Click Display.**
7. **Click Close when finished.**

To print a configuration file, follow these steps:

Procedure



1. **From the Configuration File Editor dialog box, select or display the revision number you want to print.**
2. **Click Print.**
3. **Select the box in the dialog box that contains the file you want to print.**
4. **Click OK.**

You can edit a workstation's configuration files from the Configuration File Editor. Because these files are database records, you must save them as files before you can restore them to the workstation. After you save a file, you can transfer it to the client workstation to replace an existing file.

The edits you make in the Configuration File Editor cannot be saved to the database. To save your edits, you must select the Save As button and save the database record as a file. If you replace a workstation's configuration file, the file is recorded in the database as a revision at the next software inventory scan.

To restore a workstation's configuration file, follow these steps:

Procedure



1. **From the Device Inventory dialog box, double-click the file you want to edit or restore.**
2. **In Configuration File Editor dialog box, display or select the revision you want to restore.**
3. **Click Save As.**
4. **Select the box in the dialog box graphic that contains the revision you want to save.**
5. **Click OK.**
6. **In the Save As dialog box, specify the directory and filename for the file. For peer-to-peer systems, you can save the file directly to the user's hard disk. You don't need to complete Steps 7-9.**

**7. Click OK.**

**8. Click the File Xfer button to launch File Transfer.**

Use File Transfer to save the file on the user's hard disk (See Chapter 3, "Controlling Servers and Workstations.")

The Configuration File Editor window can only display up to 28 KB of a file. You can edit a file larger than 28 KB by saving it as a file and using an editor program.

To edit files larger than 28 KB, follow these steps:

Procedure



- 1. In the Configuration File Editor window, select the revision of the file you want to edit.**
- 2. Click Save As.**
- 3. Enter a name and path for the file.**
- 4. Open the file in an editor program and make the changes you want.**
- 5. Save the changes and transfer the file onto the workstation's local hard disk.**

## Diagnosing DOS Memory Usage

You can view the programs loaded in conventional and upper memory of a DOS or Windows workstation from the Memory Map window.

The Memory Map window is useful for finding possible conflicts between TSRs and for seeing whether there is enough memory to run an application. For example, even though there might be a large amount of free memory, a software application can run only if there is enough contiguous memory to load that application into memory.

Memory becomes fragmented when a program closes after another program loads in memory above it. If there is a large discrepancy between the size of the largest free memory block and the total amount of free memory, memory might be too fragmented to run applications. Restarting the workstation clears the workstation's memory.

Memory Map				
Blocks	Total	Lower	Upper	Name
03	19248	18656	592	CONFIG
01	2640	2640	0	Command
01	22576	22576	0	LSL
01	9456	9456	0	EXP160DI
01	16640	16640	0	IPXDDI
04	48960	14752	34208	VLM
02	20784	20784	0	C:\MOUSE\MOUSE.COM

Largest Free Block: 1536

Total Free: 1536

Hooked Interrupt Vectors:

02 Nonmaskable

0E Diskette service

17 Printer

2A Reserved

70 Reserved

76 Reserved

FC Unused

PSP Information

Current PSP: 0008

File Handles: 0116:10DA

Parent Process ID: D1DF

Environment Seg: 10DA

File Handle Count: 22

Master File Table Offsets:

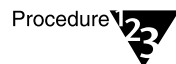
CF 00 00 00 00 00 00 00

00 00 00 00 00 2E 8F 06

DB 10 2E 8F 06 DD

For information on the amount of space on a workstation's hard disks, select *Device > Inventory* and find the Fixed Disk entries in the Component box.

To display a map of memory usage on a client workstation, follow these steps:



1. Select a DOS or Windows workstation from the device tree.
2. Select *Device > Memory Map*.

The Memory Map fields are explained in Table 5-5.

**Table 5-5**  
**Memory Map Fields**

Item	Description
Blocks	The number of blocks that have been allocated for the program. DOS allocates memory in blocks from 16 bytes to 640 KB in size. A large number in this field can indicate the program is fragmented.
Total	The total amount of lower and upper memory the application uses.
Lower	The amount of lower memory the application uses.
Upper	The amount of upper memory in use by the application.
Name	The name of the program, if available. Programs such as TSRs that don't make their names available are listed as "N/A."
Largest Free Block	The size of the largest area of memory available.
Total Free	The amount of free memory remaining.

The Hooked Interrupt Vectors box lists all interrupt vectors that point to the program itself. Typically, this means the program is providing its own handlers for these interrupts. For a complete list of interrupt vectors, refer to the Interrupt Vector Table in the Device menu.

The PSP Information dialog box lists information about the size and location of the selected program in memory. The PSP is the Program Segment Prefix, a hexadecimal address that indicates the starting address of the program.

To display a program's interrupt vectors and PSP information,

- ◆ Select the program for which you want to view interrupt and PSP information.

The PSP Information dialog box also contains the information outlined in Table 5-6.

Table 5-6  
PSP Information

Item	Description
Current PSP	The address of the currently selected PSP.
File Handles	The address of the program's file handle table. By default, the table is stored at offset 0018 (hex) from the start of the PSP.
Parent Process ID	The PSP segment address of the process that launched the selected program. The Parent Process ID enables you to identify the process or application that launched the selected program. Processes loaded at startup, such as COMMAND.COM, have their own PSP segment address as their Process ID.
Environment Segment	The segment address of the program's environment. The environment is a block of memory containing values for global variables that are available to DOS and applications.
File Handle Count	The maximum number of input and output paths the program can have open simultaneously. The DOS default is 20.
Offset Master File Table	Values that represent offsets into DOS's master file table. A value of FF indicates the handle is not being used. The first five handles default respectively to the keyboard, the video display (handles 2 and 3), the first communications port, and the first parallel printer port.

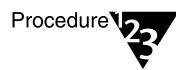
Determining which Drivers Are Running on a Workstation

The Device Drivers window displays real-time information about the drivers running on a selected DOS or Windows workstation. You can

use the information in this window to determine whether the workstation has the required drivers loaded and whether there are any address conflicts between the drivers that are loaded.

Device Drivers						
Address	Name	Strategy	Interrupt	Disk	Support	Description
0116:0048	NUL	0DC6	0DCC	-	.	NUL Character Device
CCCD:2192	D: - F:	01B3	0253	IBM	G	3 Huge Removable Block Device
EB29:0000	IFS\$HLP\$	040B	03A8	-	Y	Character Device
C94C:0000	ASPICD0	025E	0269	-	Y	Open/Close Character Device
039E:0000	SCSIMGR\$	0020	0029	-	Y	Character Device
EB03:0000	SETVERXX	001E	0029	-	.	Character Device
029B:003A	\$MMXXXX0	004C	007E	-	Y	Character Device
029B:0000	\$MMXXXX0	004C	007E	-	Y	Character Device
0255:0000	XMSXXXX0	004C	0057	Busy	.	Character Device
0070:0023	CON	06F5	0700	-	.	Special StdIO Character Device
0070:0035	AUX	06F5	0721	-	.	Character Device
0070:0047	PRN	06F5	0705	Busy	G	Character Device
0070:0059	CLOCK\$	06F5	0739	-	.	Clock Character Device

To display device driver information, follow these steps:



1. Select a DOS or Windows workstation icon in the device tree.
2. Select *Device > Device Drivers*.

Table 5-7 explains each field in the window.

**Table 5-7**

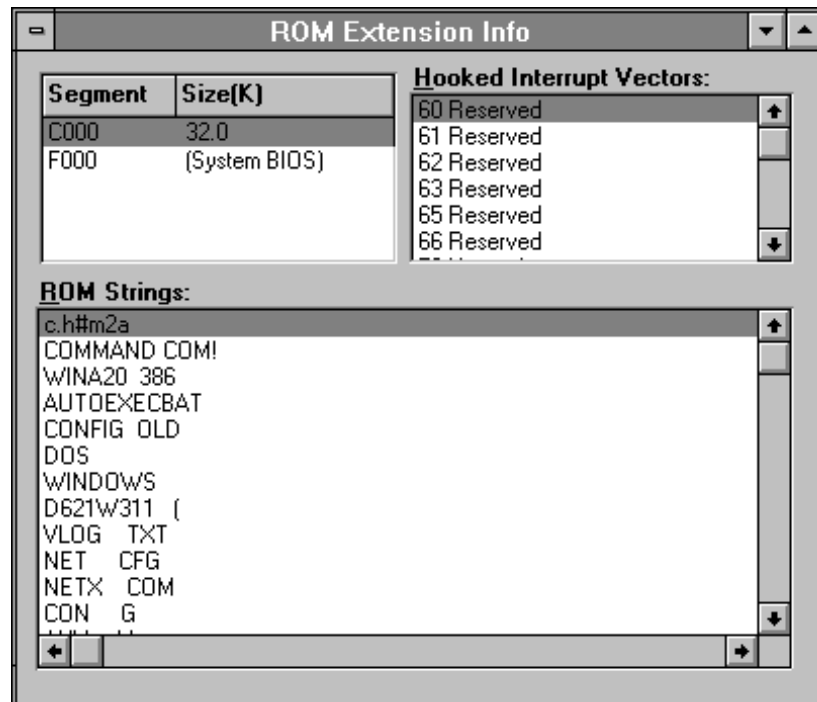
**Device Drivers Window Fields**

Item	Description
Address	The starting address of the device driver.
Name	The name of the device driver.
Strategy	The entry offset strategy. This field represents the starting address (offset) of the driver's strategy routine.
Interrupt	The entry offset interrupt. This field represents the starting address (offset) of the driver's interrupt routine.
Disk	Whether the device supports IBM* compatible disk media. This field is valid only for block devices. A dash appears for character devices and block devices that don't support IBM-formatted disks.
Support	Whether the device supports generic I/O control function calls. The following values are possible: <ul style="list-style-type: none"><li>◆ Generic I/O control functions are not supported.</li><li>◆ Generic I/O control functions are supported.</li><li>◆ Nongeneric I/O control functions are supported.</li><li>◆ Both generic and nongeneric I/O control functions are supported.</li></ul>
Description	Lists any descriptive information given in the driver header. Generally, this field lists the device type.



## Displaying Information about ROM Modules

Desktop Manager displays the segment address and size of all read-only memory (ROM) modules installed on a target DOS or Windows workstation.



To display the address and size of all ROM modules on a workstation, follow these steps:

Procedure



1. Select a DOS or Windows workstation from the device tree.
2. Select *Device > ROM Extension Info*.

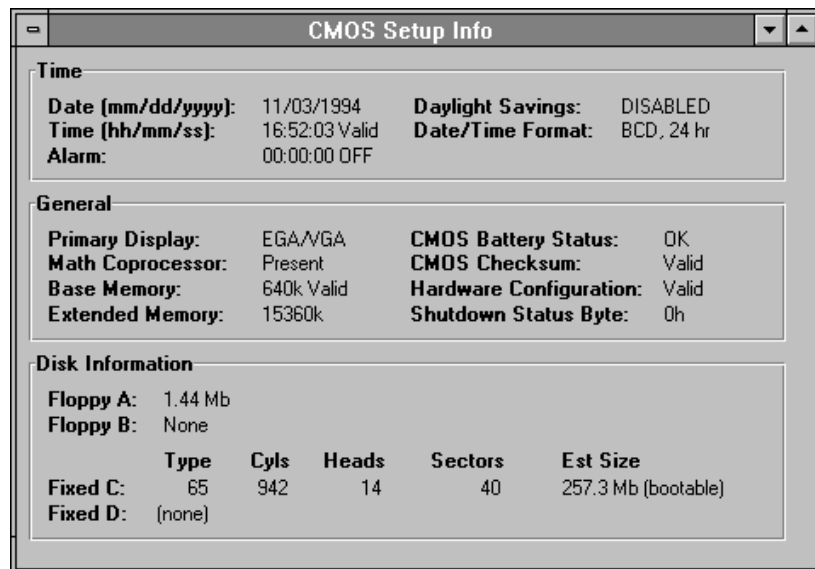
The Hooked Interrupt Vectors and the ROM Strings boxes display the information for the selected ROM segment described in Table 5-8.

**Table 5-8**  
**ROM Segment Information**

Item	Description
Hooked Interrupt Vectors	Lists the interrupts for which the ROM is supplying its own interrupt routine.
ROM Strings	Lists all the ASCII printable strings contained in the ROM. Typically, these include header information and error messages.

## Verifying that a Workstation Starts Correctly

You can use the CMOS Setup Information window to check how a workstation starts.



PC/XTs and compatibles don't contain CMOS. This option is applicable only to AT-compatible and faster machines.

To display CMOS information for a client workstation, follow these steps:

Procedure



1. **Select a DOS or Windows workstation from the device tree.**
2. **Select *Device > CMOS Setup Info*.**

Some of the fields are followed by the keywords Valid or Invalid. Invalid data in CMOS can occur for a variety of reasons, the most common being a weak battery. CMOS also can be corrupted by poorly programmed software.

The CMOS Setup Information window contains the fields described in Table 5-9.

**Table 5-9**  
**CMOS Setup Information**

Field	Description
Date	The current date according to the client workstation's CMOS.
Time	The current time according to the client workstation's CMOS.
Alarm	The time the alarm is set to ring and whether the alarm is ON or OFF. Not all CMOS supports this option.
Daylight Savings	Whether daylight savings is enabled or disabled. Not all CMOS supports this option.
Date/Time Format	The data format for the date and time field. Typically, dates and times are stored in Binary Coded Decimal format. This field also states whether the time is stored in 12 hour or 24 hour format.
Primary Display	The primary display type. Possible values include EGA/VGA, Monochrome, Color 40 Column, and Color 80 Column.
Math Coprocessor	Whether a math coprocessor is present.

Table 5-9 *continued***CMOS Setup Information**

Field	Description
Base Memory	The amount of conventional memory in the workstation. The amount should never be greater than 640 KB. If the amount detected by Desktop Manager conflicts with the amount contained in the workstation's CMOS information, "Invalid" also appears in this field.
Extended Memory	The amount of extended memory installed in the workstation.
CMOS Battery Status	This value is obtained from a single CMOS bit wired directly to the battery. As long as the battery maintains a high voltage, the value of this bit is 1. If the voltage drops, the value of the bit switches to 0, indicating a dead battery.
CMOS Checksum	At startup, most PCs do checksum tests of all RAM, including CMOS RAM. This field reports the results of that test for CMOS.
Hardware Config.	Whether the CMOS memory is valid or invalid.
Shutdown Status Byte	CMOS contains a special byte that affects how 286-based workstations switch from Protected Mode to Real Mode. Depending on the value of this byte, a switch from Protected Mode to Real Mode can force a complete restart of the machine or an aborted restart that enables programs to remain in memory.
Diskette A	The type of disk drive assigned to drive A:.
Diskette B	The type of disk drive assigned to drive B:.
Fixed Disk C	The fixed disk type assigned to drive C:, if applicable.
Fixed Disk D	The fixed disk type assigned to drive D:, if applicable.

## Viewing CMOS Information for Fixed Disks

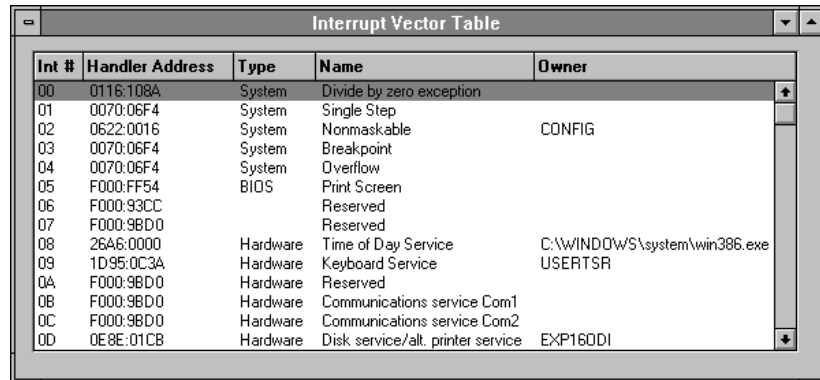
The CMOS maintains information about the types of disks the workstation is using. Desktop Manager lists the information for each fixed disk described in Table 5-10.

**Table 5-10**  
**Fixed Disk Information**

Field	Description
Type	A numeric code that represents the type of hard disk installed. Each BIOS supports a set of code numbers that indicates the size of the disk, the number of cylinders, and the number of sectors per track. Refer to the installation manual for the workstation you are monitoring for a detailed description of disk drive types.
Cyls	The number of cylinders.
Heads	The number of read/write heads.
Sectors	The number of sectors per track. Some hard disks are formatted so there are more sectors for outer tracks than for inner tracks. If the number of sectors varies, the number provided in this field is an average.
Est Size	The estimated size of the hard disk, given in MB. Following the size, Desktop Manager reports whether the hard disk is formatted to be a startup drive.

## Displaying Interrupt Information

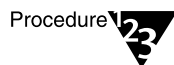
The interrupt vector table is the master DOS table for all hardware and software interrupts. Whenever an interrupt occurs, the CPU refers to the table to find the address of the corresponding interrupt handler.



Int #	Handler Address	Type	Name	Owner
00	0116:108A	System	Divide by zero exception	
01	0070:06F4	System	Single Step	
02	0622:0016	System	Nonmaskable	CONFIG
03	0070:06F4	System	Breakpoint	
04	0070:06F4	System	Overflow	
05	F000:FF54	BIOS	Print Screen	
06	F000:93CC		Reserved	
07	F000:9BD0		Reserved	
08	26A6:0000	Hardware	Time of Day Service	C:\WINDOWS\system\win386.exe
09	1D95:0C3A	Hardware	Keyboard Service	USERTSR
0A	F000:9BD0	Hardware	Reserved	
0B	F000:9BD0	Hardware	Communications service Com1	
0C	F000:9BD0	Hardware	Communications service Com2	
0D	0E8E:01C8	Hardware	Disk service/alt. printer service	EXP160DI

Many of the vectors have default values that correspond to DOS-supplied handlers. However, an application can modify the vector table and provide its own interrupt handlers. Interrupt vectors that have been modified by an application are called hooked interrupt vectors.

To display the interrupt vector table of a workstation, follow these steps:



1. **Select a workstation from the device tree.**
2. **Select *Device > Interrupt Vector Table*.**

Table 5-11 describes the interrupt information found in the Interrupt Vector Table.

**Table 5-11**  
**Interrupt Information**

Field	Description
Int #	The interrupt number. 00 is the first interrupt and is placed at the beginning of memory.
Handler Address	The hexadecimal address of the interrupt handler resides in memory.
Type	The vector type. Possible types are System, BIOS, Hardware, DOS, PC Cluster, PROGS, LIM EMS, and AT BIOS.
Name	The name of the interrupt.
Owner	The name of the application using the interrupt vector.

## 6 *Customizing Desktop Manager*

ManageWise® Desktop Manager uses a number of NLM™ files, executables, and initialization (.INI) files to scan networked devices, maintain database records, and enable remote control. You can customize Desktop Manager by configuring these files.

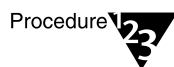
This chapter contains the following sections:

- ◆ “The Desktop Manager utility allows you to customize the inventory database. You will need to run Desktop Manager to make any changes.” on this page
- ◆ “Using the Inventory Database” on page 80.
- ◆ “You can display a bitmap picture and play a waveform sound file for each user recognized in the database. You can use the bitmap picture to display a photograph of the user or the location of the user’s workstation on a map of the building. You can use the sound file to play the proper pronunciation of the user’s name.” on page 106.
- ◆ “Configuring the User Agents” on page 108.

### Launching Desktop Manager

The Desktop Manager utility allows you to customize the inventory database. You will need to run Desktop Manager to make any changes.

To launch Desktop Manager follow these steps:



1. **From the workstation where the ManageWise Console is installed, log in to the network with ADMIN or SUPERVISOR rights or equivalencies.**
2. **Start Windows if you have not already done so.**



3. Double-click the ManageWise group to open it.
4. Double-click the ManageWise Console icon.
5. Select a server or network object from either the *View > All NetWare File Servers* window or click on an object in ManageWise Console map.
6. Select *Tools > Desktop Manager*.

For steps on starting the ManageWise Console refer to the *ManageWise Setup Guide*.

## Using the Inventory Database

Table 6-1 explains the files that are used in gathering inventory information and maintaining the inventory database. DOS, Windows, OS/2, and Macintosh clients are supported over the IPX™ protocol.

**Table 6-1**  
**Files Used by the Inventory Database**

File	Description
LDINV.NLM	Manages the inventory database. LDINV.NLM works with WLDISCAN.EXE, LDISCAN.EXE, LDISCNNT.EXE, and LDISCAN2.EXE to create and modify records in the database.
LDISCAN.NLM	Scans servers for inventory information and sends the information to the specified server.
LDISCAN.EXE	Scans DOS workstations.
WLDISCAN.EXE	Scans Windows 3.x, Windows 95, Windows 98 workstations for inventory information over IP and IPX.
LDISCNNT.EXE	Scans Windows NT servers and workstations for inventory information over IPX.
LDISCAN2.EXE	Scans OS/2 stations for inventory information.
Inventory MacScan	Scans Macintosh and Power Macintosh workstations.

Table 6-1 *continued***Files Used by the Inventory Database**

File	Description
LDISCAN.CFG	A hidden file on the root of a station's local drive that contains the station's unique identification.
LDAPPL.INI	Used by the scanning programs to recognize software. This file also sets the parameters for the software scan.
SCAN.INI	Keeps distributed LDAPPL.INI files current with the LDAPPL.INI file in the core server's network directory.
.DAT	Data files that make up the inventory database. TYPES.DAT, VALUES.DAT, MACHINES.DAT, and FILES.DAT.

**Loading the Database**

LDINV.NLM has the following command-line syntax:

```
LOAD LDINV[.NLM] FILE=path [PACK]
[TIME=n][NOTIFY=name] [TIMEOUT=n]
```

Table 6-2

**LDINV.NLM Command Parameters**

Parameter	Description
FILE= <i>path</i>	Specifies the path to the inventory database files.
PACK	Creates a new, compact database by copying current records into new .DAT files and removing unused data from the database. Desktop Manager is unable to scan devices or display information while packing the database.

Table 6-2 *continued*

**LDINV.NLM Command Parameters**

Parameter	Description
TIME= <i>n</i>	Sets the time of day for the cleanup feature in the database, in whole hours. The clock is in military time, so 0 = midnight and 23 = 11 p.m. The default value is 18, or 6 p.m.  Because the cleanup can increase CPU utilization on the server, you should schedule this process at off-peak hours.
NOTIFY= <i>name</i>	Sends a 25th-line message to the indicated person or group when an inventory change is detected. You can set the inventory components you want to be alerted on in case of changes in the Changes Log dialog. For more information, see "Recording Inventory Changes" on page 52.
TIMEOUT= <i>n</i>	Specifies the number of seconds before time-out; default is 120 seconds. If you experience inventory failure due to a slow and/or congested network, you should increase this time-out value.

## Configuring the Inventory Database for Macintosh Stations Using LocalTalk

If you are scanning Macintosh workstations over LocalTalk\*, you need to configure the inventory database to translate the AppleTalk\* protocol into the IPX protocol. Load the Novell® MACIPXGW.LAN driver and bind IPX to the driver. Macintosh stations using Ethernet or Token Ring do not require this adjustment.

MACIPXGW.LAN can be located on CompuServe\* and on AppleLink\*. Refer to the files that accompany MACIPXGW.LAN for more information about its use.

## Merging Inventory Databases

If you use more than one inventory database on your network, you can merge the databases together in a common directory. You can merge several databases into an existing database or into a new database.

To merge databases into a common database, follow these steps:

Procedure



1. Select **Tools > Merge Inventory Databases**.
2. Move the databases you want to merge into the **Merged Databases** box by selecting the icons in the **Databases** box and clicking the **>>** button.
3. Select the **Browse** button to indicate the path for the new database or to an existing database.
4. Click the **Merge** button.
5. Click **Close**.

Note



Databases created with the merge feature do not appear in the **Select an Inventory Database** dialog box because the LDINV.NLM does not maintain them. Click the **Merge** button in the **Select an Inventory Database** dialog box to open a database created with the merge feature.

## Scanning Servers

Desktop Manager uses LDISCAN.NLM to scan servers for hardware and software information. LDISCAN.NLM also discovers networked NET SatisFAXtion\*, NetPort\*, and StorageExpress™ products and software. Inventory information is stored on the server specified on the command line.

### Setting LDISCAN.NLM Options

Desktop Manager uses LDINV.NLM to manage the inventory database on server. LDINV.NLM coordinates access to and maintenance of the inventory database and supplemental log files. LDINV.NLM is a NetWare Loadable Module, it must be loaded from the file server console.

LDISCAN.NLM uses the following command-line syntax:

```
LOAD LDISCAN[.NLM] INV_SERV=servername FILE=path  
[TIME=n] [NETFAX] [NETPORT] [SERVER] [STOREXP] [ALL]
```

**Table 6-3**  
**LDISCAN.NLM Command Parameters**

Parameter	Description
INV_SERV= <i>servername</i>	Directs the results of the scan to the server specified. The specified server must have LDINV.NLM loaded.
FILE= <i>path</i>	Lists the path to the SCAN.INI file. LDINV.NLM reads the SCAN.INI file for the paths to distributed copies of LDAPPL.INI and updates these files if necessary.
TIME= <i>n</i>	Sets the time of day for the server hardware scan in whole hours. The clock is in military time, so 0 = midnight and 23 = 11 p.m. Software scans are configured with the <i>Options &gt; Software Scanning</i> option in Desktop Manager.
NETFAX	Includes NET SatisFAXtion systems in the scan.
NETPORT	Includes NetPort print servers in the scan.

Table 6-3 *continued*

### LDISCAN.NLM Command Parameters

Parameter	Description
SERVER	Includes the server in the scan. SERVER is the assumed parameter when none of the parameters below are on the load line.
STOREXP	Scans for information about StorageExpress systems on the network.
ALL	Includes all the above products and the server in the scan.

## Scheduling Server Scans

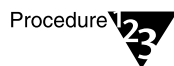
LDISCAN.NLM scans for the inventory information specified on the command line when the NLM loads. Hardware scans recur every day as specified by the `TIME=#` parameter. The `TIME` parameter is set in military time, so 0 = midnight and 23 = 11 p.m.

During hardware scan, LDISCAN.NLM checks the software scanning frequency (set in the *Options > Software Scanning* option of Desktop Manager) to determine if a software scan should also be run.

To change the time for server hardware scans, follow this step:

- ◆ Add the `TIME=n` parameter to the `load LDISCAN` line of `SYS:SYSTEM\MW_AUTO.NCF`.

To change the interval for server software scans, follow this step:



1. Select *Options > Software Scanning*.
2. Set the frequency.
3. Click OK.

## Workstation Inventory Scanning

Desktop Manager uses four platform-dependent scan programs to discover hardware and software information on client workstations.

**Table 6-4**  
**Scan Programs**

Program	Platform and Protocol
LDISCAN.EXE	DOS
WLDISCAN.EXE	Windows 3.x, Windows 95, Windows 98 over IP and IPX
LDISCNNT.EXE	Windows NT server and workstations over IPX
LDISCAN2.EXE	OS/2 over IPX
Inventory MacScan	Macintosh

### Setting Options for DOS Inventory Scanner

The LDISCAN programs can be run from a login script for networked workstations or from a diskette for non-networked workstations. demand.

The scan program uses the following command-line syntax:

```
[/S=servername] [/D=directory] [/A=number] [/F] [/N]  
[/I=inifile] [/O=[path]filename] [T=[path]filename]  
[/Q=[path]filename]] [/Z=number] [/U] [/M] [/V] [/W]  
[/?]
```

**Table 6-5**  
**DOS Scan Program Parameters**

Parameter	Description
/S= <i>servername</i>	Specifies the inventory server on which to store the inventory information.

Table 6-5 *continued***DOS Scan Program Parameters**

Parameter	Description
<i>/D=directory</i>	Starts the scan in the specified directory. By default, the scan starts in the root directory of each local hard disk.
<i>/I=inifile</i>	Provides software descriptions to LDISCAN.EXE from a file other than LDAPPL.INI. The file must be located in the same directory as LDISCAN.EXE.
<i>/O=[path]filename</i>	Writes inventory information to the specified output file. The filename CON sends output to the screen.
<i>/T=[path]filename</i>	Copies the contents of the specified file to the inventory database. This option is used to enter inventory data from stand-alone workstations or from separate inventory files.
<i>/Q=[path]filename</i>	Discovers files that have extensions listed under ScanExtensions in LDAPPL.INI but are not defined in LDAPPL.INI. This option is similar to the Unlisted Mode switch in LDAPPL.INI, but the results are printed to a file instead of the database.  If you do not specify a filename, the program prompts you to ignore each file or add its description to LDAPPL.INI. If you select to add the file description, you are prompted to enter a description and version number for each file.
<i>/A=number</i>	Specifies the number of seconds before time-out. The default is 5 seconds. If you experience inventory failure due to a slow and/or congested network, you should increase this time-out value.
<i>/Z=number</i>	Specifies the retry count.
<i>/U</i>	Disables the CTRL+C (break) keystroke on the target station for the duration of the scan. This option keeps users from interfering with the inventory scan.



Table 6-5 *continued*

### DOS Scan Program Parameters

Parameter	Description
/M	Creates the LDISCAN.MIF file in the C:\DMI\DOS\MIFS directory. This file contains the workstation inventory information discovered in the scan.
/F	Forces a software scan regardless of the software scanning setting.
/N	Exempts subdirectories from the search.
/V	Makes the scan visible to the user by displaying the scan's status. If the workstation has not been scanned previously, this option displays a spinning wheel during the software scan. If the workstation has been previously scanned a progress bar is displayed during the software scan.
/W	Runs the DOS scan from a Windows DOS box without prompting the user to exit Windows.
/?	Displays the command-line syntax help.

### Setting Options for Windows 3.x, Windows 95, Windows 98 Inventory Scanner

The WLDISCAN program can be run from a login script for networked workstations or from a diskette for non-networked workstations. demand.

The scan program uses the following command-line syntax:

```
[/S=servername] [/D=directory] [/A=number] [/F] [/N]
[/I=inifile] [/O=[path]filename] [T=[path]filename]
[/Q=[path]filename]] [/Z=number] [/U] [/M] [/V] [/W]
[/?]
```

Table 6-6

**Windows 3.x/Windows 95/Windows 98 Inventory Scan Program Parameters**

Parameter	Description
<i>/S=servername</i>	Specifies the inventory server on which to store the inventory information.
<i>/D=directory</i>	Starts the scan in the specified directory. By default, the scan starts in the root directory of each local hard disk.
<i>/I=inifile</i>	Provides software descriptions to LDISCAN.EXE from a file other than LDAPPL.INI. The file must be located in the same directory as LDISCAN.EXE.
<i>/O=[path]filename</i>	Writes inventory information to the specified output file. The filename CON sends output to the screen.
<i>/T=[path]filename</i>	Copies the contents of the specified file to the inventory database. This option is used to enter inventory data from stand-alone workstations or from separate inventory files.
<i>/Q=[path]filename</i>	Discovers files that have extensions listed under ScanExtensions in LDAPPL.INI but are not defined in LDAPPL.INI. This option is similar to the Unlisted Mode switch in LDAPPL.INI, but the results are printed to a file instead of the database.  If you do not specify a filename, the program prompts you to ignore each file or add its description to LDAPPL.INI. If you select to add the file description, you are prompted to enter a description and version number for each file.
<i>/A=number</i>	Specifies the number of seconds before time-out. The default is 5 seconds. If you experience inventory failure due to a slow and/or congested network, you should increase this time-out value.

Table 6-6 *continued***Windows 3.x/Windows 95/Windows 98 Inventory Scan Program Parameters**

Parameter	Description
<code>/p=IP/IPX</code>	Changes the network protocol from IPX to TCP/IP. The parameter values include IPX for the IPX network protocol and IP for the TCP/IP network protocol.
<code>/X</code>	Disables software scanning.
<code>/M</code>	Creates the LDISCAN.MIF file in the C:\DM\DOS\MIFS directory. This file contains the workstation inventory information discovered in the scan.
<code>/N</code>	Exempts subdirectories from the search.
<code>/?</code>	Displays the command-line syntax help.

**Setting Options for Windows NT Inventory Scanner**

The LDISCNNT programs can be run from a login script for networked workstations and server or from a diskette for non-networked workstations. LDISCNNT.EXE can be run at startup. All scan programs can be run on demand.

The Windows NT scan program use the following command-line syntax:

```
[/S=servername] [/D=directory] [/I=inifile] [/H]
[/A=number] [/O=[path]filename] [T=[path]filename]
[/Q=[path]filename]] [/Z=number] [/U] [/M] [/F] [/W]
[/N] [/NTI[I:N]] [/NTT[T]] [/V] [/?]
```

Table 6-7

**Windows NT Inventory Scan Program Parameters**

Parameter	Description
<code>/S=servername</code>	Specifies the inventory server on which to store the inventory information.

Table 6-7 *continued*

# Windows NT Inventory Scan Program Parameters

Parameter	Description
<i>/D=directory</i>	Starts the scan in the specified directory. By default, the scan starts in the root directory of each local hard disk.
<i>/I=inifile</i>	Provides software descriptions to LDISCNNT.EXE from a file other than LDAPPL.INI. The file must be located in the same directory as LDISCNNT.EXE.
<i>/O=[path]filename</i>	Writes inventory information to the specified output file. The filename CON sends output to the screen.
<i>/T=[path]filename</i>	Copies the contents of the specified file to the inventory database. This option is used to enter inventory data from stand-alone workstations or from separate inventory files.
<i>/Q=[path]filename</i>	Discovers files that have extensions listed under ScanExtensions in LDAPPL.INI but are not defined in LDAPPL.INI. This option is similar to the Unlisted Mode switch in LDAPPL.INI, but the results are printed to a file instead of the database.  If you do not specify a filename, the program prompts you to ignore each file or add its description to LDAPPL.INI. If you select to add the file description, you are prompted to enter a description and version number for each file. Do not use with the /S or /SNMP parameters.
<i>/A=number</i>	Specifies the number of seconds before time-out. The default is 5 seconds. If you experience inventory failure due to a slow and/or congested network, you should increase this time-out value.
<i>/Z=number</i>	Specifies the retry count.
<i>/H</i>	Displays the command-line syntax help.

Table 6-7 *continued*

### Windows NT Inventory Scan Program Parameters

Parameter	Description
/U	Disables the CTRL+C (break) keystroke on the target station for the duration of the scan. This option keeps users from interfering with the inventory scan.
/M	Creates the LDISCAN.MIF file in the C:\DM\DOS\MIFS directory. This file contains the workstation inventory information discovered in the scan.
/F	Forces a software scan regardless of the software scanning setting.
/N	Exempts subdirectories from the search.
/NTI[I:N]	Specifies IPX for communication with the remote inventory server. The parameter values specify the internal network address and node address of the remote inventory server.
/NTT[T]	Specifies TCP/IP for communication with the remote inventory server. The parameter values specify the dotted decimal IP address of the remote inventory server.
/V	Makes the scan visible to the user by displaying the scan's status. If the workstation has not been scanned previously, this option displays a spinning wheel during the software scan. If the workstation has been previously scanned a progress bar is displayed during the software scan.
/W	Runs the scan from a Windows DOS box without prompting the user to exit Windows.
/?	Displays the command-line syntax help.

### Setting Options for OS/2 Inventory Scanner

LDISCAN2.EXE can be run at startup by placing the program in the STARTUP.CMD or on demand from a command line.

The OS/2 scan program use the following command-line syntax:

```
[/S=servername] [/D=directory] [/I=inifile] [/U] [/F]
[/O=[path]filename] [T=[path]filename] [/A=number]
[/Q=[path]filename]] [/Z=number] [/N] [/W] [/?]
```

Table 6-8

**OS/2 Inventory Scan Program Parameters**

Parameter	Description
<i>/S=servername</i>	Specifies the inventory server on which to store the inventory information.
<i>/D=directory</i>	Starts the scan in the specified directory. By default, the scan starts in the root directory of each local hard disk.
<i>/I=inifile</i>	Provides software descriptions to LDISCAN2.EXE from a file other than LDAPPL.INI. The file must be located in the same directory as LDISCAN2.EXE.
<i>/O=[path]filename</i>	Writes inventory information to the specified output file. The filename CON sends output to the screen.
<i>/T=[path]filename</i>	Copies the contents of the specified file to the inventory database. This option is used to enter inventory data from stand-alone workstations or from separate inventory files.
<i>/Q=[path]filename</i>	Discovers files that have extensions listed under ScanExtensions in LDAPPL.INI but are not defined in LDAPPL.INI. This option is similar to the Unlisted Mode switch in LDAPPL.INI, but the results are printed to a file instead of the database.  If you do not specify a filename, the program prompts you to ignore each file or add its description to LDAPPL.INI. If you select to add the file description, you are prompted to enter a description and version number for each file. Do not use with the /S or /SNMP parameters.

Table 6-8 *continued*

## OS/2 Inventory Scan Program Parameters

Parameter	Description
<i>/A=number</i>	Specifies the number of seconds before time-out. The default is 5 seconds. If you experience inventory failure due to a slow and/or congested network, you should increase this time-out value.
<i>/Z=number</i>	Specifies the retry count.
<i>/U</i>	Disables the CTRL+C (break) keystroke on the target station for the duration of the scan. This option keeps users from interfering with the inventory scan.
<i>/F</i>	Forces a software scan regardless of the software scanning setting.
<i>/N</i>	Exempts subdirectories from the search.
<i>/?</i>	Displays the command-line syntax help.

## Setting Scan Options for the Inventory MacScan

The Inventory MacScan program must be installed and configured at each Macintosh workstation. For information on installing the MacScan Inventory Scanner refer to Chapter 5, "ManageWise Workstation Installation Notes," in the *ManageWise Setup Guide*.

For normal scanning, set Inventory MacScan to run an inventory scan each time the program launches. To change scanning options, open the Inventory MacScan program by clicking the Inventory MacScan icon in the MacScan folder.

To configure Inventory MacScan, follow these steps:

Procedure



1. **Run Inventory MacScan.**
2. **Select *File > Preferences*.**
3. **Select *Options*.**

4. Click OK.

To run a scan each time Inventory MacScan loads, follow these steps:

Procedure



1. Run Inventory MacScan.
2. Select *File > Preferences*.
3. Select **Automatically Scan during startup**.
4. Select OK.

### Select a ManageWise Server to Send Inventory Information

Inventory MacScan requires a database to send the inventory information to. The first time the program runs, it prompts you to select a NetWare server with an inventory database. This database continues to be used until you select another inventory database.

To select an inventory database for a Macintosh station, follow these steps:

Procedure



1. Run Inventory MacScan.
2. Select *File > Preferences*.
3. Choose **Select Inventory Server**.
4. Select an inventory server from the list.
5. Click OK.

You can scan for software on the Macintosh at each startup, regardless of the software scanning frequency setting (see “Because software scanning can take more time than hardware scanning, you might not want the system to scan for software each time it scans for hardware. Table 6-10 describes the available frequencies for software scanning.” on page 100).

To force software inventory scans, follow these steps:

Procedure



1. Select *File > Preferences*.



**2. Select Scan Software Regardless of the NLM.**

**3. Click OK.**

You can set Inventory MacScan to search all local volumes, a specific local drive, or a specific folder on a local drive.

To limit the scope of a software scan to a single volume,

Procedure



**1. Select *File > Preferences*.**

**2. Select Application Search and select the appropriate volume.**

**3. Click OK.**

To limit the scope of a software scan to a single folder, follow these steps:

Procedure



**1. Select *File > Preferences*.**

**2. Select Application Search.**

**3. Find and select the appropriate folder.**

**4. Choose Select Current Folder.**

**5. Click OK.**

## Components to Scan for on Macintosh Workstations

Inventory MacScan provides 12 component categories for Macintosh inventory scans. You can select to record information about each of the categories or to ignore component categories.

Table 6-9 describes the hardware and software component categories available in Inventory MacScan.

Table 6-9

**MacScan Inventory Components**

Component	Description
ADB Devices	Apple* Desktop Bus* devices such as keyboards and mice.

**Table 6-9** *continued***MacScan Inventory Components**

Component	Description
CPU	Microprocessor, coprocessors, and other CPU-related components.
Monitors	Any display attached to the workstation.
NuBus Boards	Add-on boards designed for Apple's NuBus* slots.
SCSI Devices	Any SCSI hard drives and daisy-chained SCSI devices.
Volumes	Any local hard disk.
Applications	Find any software application on a local hard disk.
Desk Accessories	Find any Desk Accessory in the Apple Menu Items folder within the System folder.
Drivers	Find any device driver functioning on the workstation.
Fonts	Find any font loaded in the System folder.
INITs	Find any INIT loaded in the System folder.
System Info	Discover the version and other information related to the operating system in use.

To select inventory component categories to include in inventory scans, follow these steps:

Procedure



1. **Select *File* > *Select Components*.**
2. **Double-click to select the appropriate components.**
3. **Click OK.**

A check mark appears to the left of each selected component.

## Scanning Networked Workstations

The client installation program (CLNTCFG.EXE) sets up networked Windows workstations to run WLDISCAN.EXE from a login script. The client installation program (NTSTACFG.EXE) sets up networked Windows NT servers and workstations to run LDISCNNT.EXE from a login script. DOSCFG.EXE sets up networked DOS workstations to run LDISCAN.EXE from a login script.

OS/2, Macintosh, and Windows stations can be set up to run a scan program at startup. You can scan most stations that log in to the network, including portable computers that log in over a modem.

To scan DOS, Windows 3.x, Windows 95, Windows 98, and Windows NT workstations and servers from a login script, follow these steps:

Procedure



1. **Open MW\_LOGIN.DAT or a login script in a text editor.**
2. **Enter the proper syntax at the Scan program command line, preceded by a # character.**

For example, if you installed ManageWise on server FS1, the MW\_LOGIN.DAT file has the following entry for Windows workstations:

```
#L:WLDISCAN /S=FS1
```

To scan Windows 3.x, Windows 95, or Windows 98 workstations without using the login script,

Procedure



1. **Place WLDISCAN.EXE in the startup group.**

**2. Select *File > Properties*.**

**3. Enter the following command:**

```
WLDISCAN.EXE /W /S=Servername
```

To scan a DOS workstation from a DOS prompt, follow this step:

- ◆ From the workstation DOS prompt, run LDISCAN.EXE for DOS workstations.

## Performing a OS/2 Inventory Scan

OS/2 workstations must place the inventory scan program file (LDISCAN2.EXE) in the STARTUP.CMD to automatically execute it at after login.

You can configure the OS/2 inventory scan by selecting *File > Preferences*. For detailed information on setting up OS/2 workstations, refer to Chapter 5, “ManageWise Workstation Installation Notes,” of this *ManageWise Setup Guide*.

## Performing a MacScan Inventory Scan

Macintosh workstations must execute an inventory scan manually or at system startup.

To manually execute an inventory scan, follow these steps:

Procedure



**1. Run the MacScan Inventory Scanner from the MacScan program folder.**

**2. Select *File > Execute scan*.**

You can configure the inventory scan options by selecting *File > Preferences*.

## Automating MacScan Inventory Scans

You can scan Macintosh stations at startup by placing Inventory MacScan in the station’s Startup folder.

To scan Macintosh stations at startup, follow this step:

- ◆ Place Inventory MacScan program in the Startup folder.

## Scanning Stand-alone Workstations

You can scan workstations that are not part of a network by copying the appropriate scan program and a software description file (usually LDAPPL.INI) to a diskette. The inventory information is stored to the diskette. The scan results can be merged into an inventory database later.

When you run the scan program, you are prompted to enter a unique name for the workstation. This name is saved in the LDISCAN.CFG file on the workstation's hard disk. The name appears in the Login name field in the inventory database.

To scan a stand-alone workstation, follow these steps:

Procedure



- 1. Copy the proper scan program and a software description file to a diskette.**
- 2. Run the scan with the /O= parameter, specifying the path and filename of the file to be created.**
- 3. At the prompt, enter a unique name for the workstation.**

The scan programs can merge information taken from a scan of a stand-alone workstation into an existing inventory database on a server.

To add inventory records from a file to the database, follow this step:

- ◆ Run the scan program with the /S= and /T= parameters.

## Scheduling Software Scanning

Because software scanning can take more time than hardware scanning, you might not want the system to scan for software each time it scans

for hardware. Table 6-10 describes the available frequencies for software scanning.

**Table 6-10**  
**Frequencies for Software Scanning**

Interval	Description
Always	Scans software with every hardware scan.
Daily	Scans software at the first hardware scan after 24 hours have passed.
Weekly	Scans software at the first hardware scan after one week has passed.
Monthly	Scans software at the first hardware scan after one month has passed.
Every	Scans software at the first hardware scan after the specified interval has passed.

The frequency you set in the Software Scanning dialog applies both to servers and workstations.

To change the software scanning frequency, follow these steps:

Procedure



1. **Select *Options > Software Scanning*.**
2. **Select the frequency at which you want to collect software and configuration file information.**
3. **Click OK.**

The software scan records the contents of the files specified on the CfgFiles= lines of the LDAPPL.INI file (see “Editing LDAPPL.INI in an Editor” later in this chapter). The software scan compares the date and size of the current file with that of the file of the previous scan. If the date and size information do not match, the scan records the contents of the file as a new revision.

You can set the number of revisions you want to maintain in the database.

To set the number of file revisions, follow these steps:



1. In the **Software Scanning** dialog, enter the number of revisions you want.
2. Click **OK**.

## Customizing Inventory Scanning

Two initialization (.INI) files control the software scanning in Desktop Manager: LDAPPL.INI and SCAN.INI. These files are used by the scan programs to hold software specifications and scan parameters. Copies of the LDAPPL.INI and SCAN.INI files are required on all servers where the scan programs are run.

The Inventory MacScan also offers options for hardware and software scanning on Macintosh workstations.

## Customizing Software Recognition

The LDAPPL.INI file is the default software description file. Changes to this file affect all software scans that do not specify a different software description file. Most of this file can be edited from Desktop Manager.

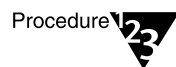
By default, the LDAPPL.INI file contains descriptions of more than 4,000 software applications. You can select to scan for a subset of the software described in the file and you can add your own software descriptions.

The scan programs recognize software in three ways: by filename, by filename and size, or, for Windows applications, by finding information included in a program's executable file.

To specify applications to include in a software scan, follow these steps:



1. Select **Options > Software List**.
2. Select a software description from the **Excluded from Scan list** box.
3. Click **Add**.
4. Click **OK**.



To add software descriptions to Desktop Manager, follow these steps:

1. Select **Options > Software List**.
2. Click **New**.
3. Enter the appropriate information in the **Application Information** group box.
4. Click **Accept**.
5. Click **OK**.

## Editing the LDAPPL.INI File in an Editor

There are five main sections to the LDAPPL.INI file: [Inventory], [Applications], [Excluded Applications], [Ignore], and [Excluded Ignore]. Only the [Inventory] section should be edited in an editor. The other four sections can be edited in Desktop Manager.

Table 6-11 describes the options for the [Inventory] section.

**Table 6-11**  
**[Inventory] Section Options**

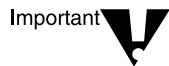
Option	Description
Mode	Determines how the scan programs use the software list. There are three possible settings: Listed, Unlisted, and All.
Listed	Listed mode records the files listed in LDAPPL.INI.
Unlisted	Unlisted mode records the names and dates of all files that have the extensions listed on the ScanExtensions line but are not defined in the LDAPPL.INI. This mode can be used to help discover unauthorized software on the network.
All	All mode discovers listed and unlisted files.
Duplicate	Records multiple instances of files. Set the value to OFF to record only the first instance or ON to record all detected instances.



Table 6-11 *continued***[Inventory] Section Options**

Option	Description
ScanExtensions	Sets the file extensions (.EXE, .COM, .CFG, etc.) to be recorded. File extensions are separated by a space in the .INI file.
Version	The scan program version. The version number helps ensure future compatibility.
CfgFiles1-4	Records the date, time, file size, and contents of the specified files. The database stores the number of revisions you specify in the Software Scanning dialog (see "Because software scanning can take more time than hardware scanning, you might not want the system to scan for software each time it scans for hardware. Table 6-10 describes the available frequencies for software scanning." on page 100). You can leave out the drive letter if you want to search all local drives.  You can specify more than one file on each of the four lines, but the line length is limited to 80 characters. Pathnames on the same line are separated by a space.
MifPath	Specifies where MIF files are to be stored on a station's local drive. By default, this value is set to C:\DMI\DOS\MIFS.

The remaining sections should only be edited from the software editor.



The software list has dependencies that can be difficult to edit. It is best not to change any of the following sections manually. Use the software editor (*Options > Software List*) to add and remove software descriptions.

The [Applications] section defines how LDISCAN recognizes an application and uses the following syntax:

```
<Method>, filename, size, application, version
```

There are three possible scanning methods. Table 6-12 explains each method.

**Table 6-12**  
**Scanning Methods**

Method	Description
<F>	Uses the file description from .EXE file headers for Windows applications.
<P>	Uses the product descriptions from .EXE file headers for Windows applications.
<I>	Uses the file and product description from the LDAPPL.INI file or the current software description .INI file. The filename and size must match exactly for Desktop Manager to record the file's application name and version number.

The [Ignore] section lists specific filenames the scan program ignores, regardless of file type. This option can speed database processing by reducing the number of files scanned.

The [Excluded] sections are used by the Edit Software List window and should not be edited manually.

## Editing SCAN.INI

The SCAN.INI file is used by Desktop Manager to replicate files among servers on the network. For example, if you have two inventory servers and you list a new application in one server's LDAPPL.INI file, you can specify in the SCAN.INI file that the second server's LDAPPL.INI file also be updated.

LDINV.NLM searches for the files specified in the SCAN.INI file every 10 minutes and reads the contents of any updated files.

### [Send] Section

The [Send] section of the SCAN.INI file lists the names, volumes, and paths of files on the server that LDINV.NLM monitors. When the time stamp of any of these files changes, LDINV.NLM alerts the other inventory servers on the network.

For example, to monitor the file LDAPPL.INI found at SYS:\, enter the following line in the [Send] section:

```
LDAPPL.INI, SYS:\
```

### **[Receive] Section**

The [Receive] section lists monitored files on other inventory servers. Each entry contains a filename, the volume, and path where the file is copied to and the name of the server that stores the file.

For example, to monitor the inventory server “FS1” for changes to its LDAPPL.INI file, type the following line in the [Receive] section:

```
LDAPPL.INI, SYS:\LOGIN\, FS1
```

## **Assigning .BMP and .WAV Files for Individual Users**

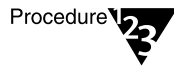
You can display a bitmap picture and play a waveform sound file for each user recognized in the database. You can use the bitmap picture to display a photograph of the user or the location of the user’s workstation on a map of the building. You can use the sound file to play the proper pronunciation of the user’s name.

A device picture is a bitmap file (.BMP) and a sound clip is a waveform file (.WAV). The names of these files must match the login name of the user as recorded in the database. For example, if USER1 is a login name, you can define a picture USER1.BMP and a sound clip USER1.WAV for that user. You don’t need a sound card; sound files can play on your system speaker (with limited clarity on some systems) as long as you have Microsoft’s PC Speaker Windows driver installed.

The [Settings] section in the LANSIGHT.INI file contains the entries BMPDir=path and WAVDir=path that specify the path to your bitmap and waveform file directories. If no path is specified, the files are assumed to be in the same directory as the Desktop Manager executable file (WSIGHT.EXE). The LANSIGHT.INI file is found in the Windows directory of the Management Workstation.

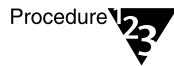
A bitmap file can be up to 64 KB. If the picture is too large, Desktop Manager crops the picture to fit in its picture window.

To assign a picture or sound file to a user, follow these steps:



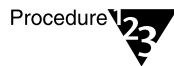
1. **Assign the user's name to the file and add a .BMP or .WAV extension.**
2. **Copy the file to the appropriate directory.**

To specify a path to the .BMP or .WAV file directory, follow these steps:



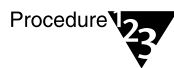
1. **Open the LANSIGHT.INI file in the Windows directory of your local drive and find the [Settings] section.**
2. **After BMPDir=, enter the path to the directory where your bitmap files are stored.**
3. **After WAVDir=, enter the path to the directory where your wave form files are stored.**

To view a user's picture, follow these steps:



1. **Select a user from the device list.**
2. **Select *Device > Picture*.**

To play a user's sound clip, follow these steps:



1. **Select a user from the device list.**
2. **Select *Device > Picture*.**
3. **Click Speaker icon.**

## Configuring the User Agents

The User Agents enable Desktop Manager to gather real-time statistics and to remotely control servers and workstations. Table 6-13 lists the User Agents and the platforms they support.

Table 6-13

**User Agents Supported Platforms**

Agent	Platform
USER.NLM	Novell NetWare 3.1x and 4.1x. NetWare 5.0 servers.
USERTSR.EXE	DOS workstations.
POPUPTSR.EXE	DOS workstations. Requires USERTSR.EXE. Extends the functionality of USERTSR.EXE for Chat and File Transfer.
WUSER.EXE	Windows 3.x, Windows for Workgroups, and Windows 95, Windows 98 workstations.
WUSER32.EXE	Windows NT workstations.
USEROS2.EXE	OS/2 version 2.1 and later workstations.

### Configuring USER.NLM and the Remote Control Log

Desktop Manager uses USER.NLM to control servers on the network and to maintain the Remote Control Log on the server. The Remote Control Log is an audit trail of remote control activity for target stations that use the server as their primary server. For information on viewing the Remote Control Log, see “Logging Remote Access” on page 38.

The maximum size of the control log is 1 MB. When the file reaches this size, the oldest 500 KB of information is deleted from the file.

USER.NLM uses the following syntax:

```
LOAD USER[.NLM] [NOVIEW] [OLDKB] [VERBOSE]
```

Table 6-14

**USER.NLM Load Command Parameters**

Parameter	Description
NOVIEW	Denies remote access to the server while maintaining the Remote Control Log. Use this option if you want to log remote control activity but you do not want the server to be controlled.
OLDKB	Enables remote-control keyboard compatibility for older BIOS versions.
VERBOSE	Enables verbose messaging of remote-control activity on the server.

## Using WUSER.EXE

Windows stations can run WUSER.EXE from the Startup group or from the Load= line in the WIN.INI file. When WUSER.EXE is run from a Startup Group, you can specify the NOSPLASH option to hide the splash screen.

## Using the Windows NT Agent

Every Windows NT target workstation must run the User Agent WUSER32.EXE to enable the Control, File Transfer, Chat, Ping test, Remote Execute and Remote Reboot features of the Desktop Manager.

The User agent is started as a service automatically when Windows NT workstation boots up. You can start WUSER32.EXE manually from the Control Panel > Services option of the Windows NT workstation.

## Using the OS/2 Agent

USEROS2.EXE is run from the workstation's Startup group. There are no command line options for USEROS2.EXE.

For the USER agent to work, OS/2 stations require VUSEROS2.SYS and USERDLL.DLL to be in the default C:\LDUSER directory.

## Using the DOS Agents

DOS systems require USERTSR.EXE to enable remote control and real-time diagnostics and POPUPTSER.EXE to enable security, Chat, Remote Security and File Transfer.

### Loading USERTSR.EXE

Every target DOS workstation must load USERTSR.EXE to enable Desktop Manager can control it.

By default, ManageWise Setup adds a command in the file MW\_LOGIN.DAT to configure the target workstations using the configuration program, DOSCFG.EXE. This configuration program copies USERTSR.EXE and POPUPTSER.EXE on each workstation. The configuration program modifies the AUTOEXEC.BAT, to load the TSRs on the workstations at login. You can alter this line with the available options.

You can load USERTSR.EXE on workstations not logged in to the network and use Desktop Manager's real-time access features on the station.

USERTSR.EXE uses the following syntax:

```
USERTSR [REMOVE] [NOMOUSE] [OLDEGA] [SNOW] [LOADHIGH]  
[STEALTH] [PERMISSION] [FIXED] [?]
```

**Table 6-15**  
**USERTSR Command Options**

Option	Description
REMOVE	Unloads USERTSR.EXE from memory.
NOMOUSE	Disables remote mouse control. Viewers cannot control the station's mouse when this option is enabled.

Table 6-15

**USERTSR Command Options**

Option	Description
OLDEGA	Installs USERTSR.EXE for old-style EGA adapters that do not have reliable registers (especially older Paradise adapters). Use this option only if you are having trouble controlling an EGA-based station.
SNOW	Reduces “snow” that might appear on the screen when controlling a station running in CGA text mode.
LOADHIGH	Moves the resident portion of USERTSR.EXE to upper DOS memory.
STEALTH	Loads USERTSR.EXE without displaying the blue copyright banner (in DOS).
PERMISSION	Forces user permission. A workstation cannot be viewed until permission is given.
FIXED	Disables the REMOVE option.
?	Displays the Help message for USERTSR.EXE.



If you load the TSRs for NET SatisfAXtion and the TSRs for ManageWise, load them in the following order: FAXNODE, USERTSR, POPUPTSR, and FAXPOP.

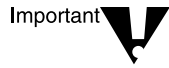
**Loading POPUPTSR.EXE**

Every target DOS workstation or other workstation that do not run Microsoft Windows fill time must load POPUPTSR.EXE to enable Desktop Manager’s security features, Chat, Remote Security and File Transfer tools.

By default, ManageWise Setup adds a command in the file MW\_LOGIN.DAT to configure the target workstations using the configuration program, DOSCFG.EXE. This configuration program copies USERTSR.EXE and POPUPTSR.EXE on each workstation. The configuration program modifies the AUTOEXEC.BAT, to load the TSRs on the workstations at login. You can alter this line with the available options.



You can load POPUPTS.R.EXE on workstations not logged in to the network and use Desktop Manager's real-time access features on the station.



If you load the TSRs for NET SatisfAXtion and the TSRs for ManageWise, load them in the following order: FAXNODE, USERTSR, POPUPTS.R, and FAXPOP.

POPUPTS.R.EXE uses the following syntax:

```
POPUPTS.R [ /L=path ] [ /T=path ] [ /H=hotkey ] [ /R ] [ /M ]  
[ /S ] [ /E ] [ /STEALTH ]
```

**Table 6-16**  
**POPUPTS.R Command Options**

Option	Description
/L= <i>path</i>	Shows the full pathname of the directory where the LANMENU.DAT file is stored. A default LANMENU.DAT file is in the shared directory (LOGIN\, by default).
/T= <i>path</i>	Shows the full pathname of the directory in which POPUPTS.R.EXE stores temporary files.
/H= <i>hotkey</i>	Overrides the default hot key combination used to call up POPUPTS.R.EXE.
/R	Removes POPUPTS.R.EXE from workstation memory.
/M	Disables the use of expanded memory at the workstation.
/S	Shows the current status of POPUPTS.R.EXE.
/E	Displays the last error POPUPTS.R.EXE encountered.
/STEALTH	Loads POPUPTS.R.EXE without displaying the blue copyright banner (in DOS).

## Loading the USER Agent on Stations Not Logged In

Client workstations do not have to be logged in to the network to load the USER agent and be controlled by Desktop Manager. To be accessed by Desktop Manager, a NetWare workstation must run either NETX or NETX Virtual Loadable Module™ (VLM™) executables.

Follow these steps for a DOS workstation:

- ◆ Make sure the configuration program, DOSCFG.EXE has configured the workstation.
- ◆ Load the appropriate network protocol so the workstation is accessible from the network.
- ◆ Make sure AUTOEXEC.BAT on the workstation has modifications to load the DOS User agents.
- ◆ Make sure USERTSR.EXE and POPUPTSER.EXE are copied on the workstation
- ◆ Place LSALLOW.EXE in the local search path.
- ◆ Place CHAT.EXE, and SLAVE.EXE and their accompanying help files (.HLP) in the local search path to enable the Chat and File Transfer tools.

Follow these steps for Windows 3.x, Windows 95, Windows 98 workstations:

- ◆ Make sure the configuration program, CLNTCFG.EXE has configured the workstation. CLNTCFG.EXE will setup the User agent WUSER.EXE on the workstation.
- ◆ Load the appropriate network protocol so the workstation is accessible from the network.
- ◆ Load NETX or VLM so Desktop Manager Server Default Security can be applied.
- ◆ Make sure the User agent is loaded.

- ◆ Place WCHAT.EXE, and WSLAVE.EXE and their accompanying help files (.HLP) in the local search path to enable the Chat and File Transfer tools.

## Configuring User Agents to Run on IP

While installing agents on the workstation, WUSER.INI file is copied to the Windows directory. By default WUSER.INI is set to run on IPX. You can configure workstations and servers to run over IP.

The configuration program NTSTACGF.EXE, enables you configure Windows NT to run over IP.

To configure Windows NT workstations to run on IP, follow these steps:

Procedure



1. Run NTSTACFG.EXE with IP/TCPIP option.
2. Using this option enables you to install the remote control agent over IP.

To manually configure NetWare 3.x/4.x/5.0 servers to run on IP, follow these steps:

Procedure



1. Locate the MW\_AUTO.NCF file. You can find MW\_AUTO.NCF file in the SYS volume of the NetWare server.
2. Edit the MW\_AUTO.NCF file by modifying the LOAD=USER as follows:

```
LOAD USER P=IP
```

You can manually edit the system files of Windows 3.x, Windows 95, Windows 98 and NetWare servers to enable the same function.

To manually configure Windows 3.x, Windows 95 and Windows 98 agents to run on IP:

Procedure



1. Edit the existing WUSER.INI file in windows directory or create a new WUSER.INI file in windows directory.
2. Create a MISC section in the WUSER.INI file.

**3. Create an entry within the MISC section to specify the protocol you want the agent to run on.**

**4. WUSER.INI file will read as follows:**

```
[MISC]
```

```
PROTOCOL=IP
```

The agent can also be loaded manually to run on IP by specifying the protocol as IP in the WUSER command line parameter as follows:

```
WUSER /P=IP
```

The command line parameters will override the protocol entries made in WUSER.INI



## **Controlling Remote Servers and Workstations**

You can control stations at remote sites that do not have network lines to your office by using ManageWise® Desktop Remote. You can use Desktop Remote on a client or host workstation. A client workstation is the station that is dialing in to control another station over a modem. The host station is the station that is controlled. There are several configuration options for both modes.

This chapter contains the following sections:

- ◆ “Using the Modem Database” on this page
- ◆ “Using the Phonebook” on page 123
- ◆ “Setting Remote Control Parameters” on page 126
- ◆ “Transferring Files” on page 128
- ◆ “Running in Host Mode” on page 129
- ◆ “Leaving Host Mode” on page 130

### **Launching Desktop Manager**

The Desktop Manager utility allows you to customize the inventory database. You will need to be running Desktop Manager to make any changes.

To launch Desktop Manager follow these steps:

Procedure



- 1. From the workstation where the ManageWise Console is installed, log in to the network with ADMIN or SUPERVISOR rights or equivalencies.**
- 2. Start Windows if you have not already done so.**

3. Double-click the ManageWise group to open it.
4. Double-click the ManageWise Console icon.
5. Select a server or network object from either the *View > All NetWare File Servers* window or click on an object in ManageWise Console map.
6. Select *Tools > Desktop Manager*.

For steps on starting the ManageWise Console refer to the *ManageWise Setup Guide*.

## Using the Modem Database

Desktop Remote includes modem definitions that represent the configurations for several popular modems.

Modem definitions determine the modem commands that Desktop Remote uses to control each modem you select. To determine the command strings appropriate for your modem, refer to the documentation that came with your modem.

If you are using a modem that is not included in this database, you can add your own modem definitions or edit an existing configuration. You can even delete any modem definitions you don't need.

The command strings that Desktop Remote uses to control your modem are explained in Table 7-1.

Table 7-1  
**Modem Command Strings**

String	Description
Initialize	Sets your modem to a predefined state before initiating or receiving a phone call.
Dial	Instructs the modem to dial a phone number.
Hangup	Instructs the modem to hang up the phone.
De-initialize	Returns the modem to a preconfigured state when closing Desktop Remote.

## Adding Modem Definitions

You can add modem definitions to Desktop Remote's database to suit your modem's configuration. Each modem definition determines the modem command strings that apply to that particular modem.

To add modem definitions, follow these steps:

Procedure



1. Select ***Configure > Modem Database.***
2. Select **Insert.**
3. Enter a modem name and any applicable modem command strings.
4. Click **OK.**

## Deleting Modem Definitions

You can delete modem definitions from the modem database. Once a definition is deleted, it cannot be selected to initiate or receive phone calls.

To delete modem definitions, follow these steps:

Procedure



1. Select ***Configure > Modem Database.***
2. Select the definition you want to delete.
3. Click the **Delete** button.
4. Click the **Yes** button in the confirmation dialog box.

## Editing Modem Definitions

Modem definitions can be edited in one of two ways. You can temporarily customize the current modem configuration or you can permanently edit the modem database. Temporary changes are saved in the DTREMOTE.INI file.



To edit modem definitions, follow these steps:

Procedure



1. Select **Configure > Modem Database**.
2. Select the definition you want to edit.
3. Select **Edit**.
4. Edit the appropriate modem command strings.
5. Click **OK**.

## Customizing the Current Modem Definition

Each time you change modems, all custom information is replaced by the default definition of the newly selected modem.

To customize the current modem definition, follow these steps:

Procedure



1. Select **Configure > Communications**.
2. Select **Customize**.
3. Edit the appropriate modem command strings.
4. Click **OK**.

## Setting Up Your Modem

Once you have properly defined your modem, select the modem type you want to use from the database.

Procedure



1. Select **Configure > Communications**.
2. Select a modem name from the **Modem Type** drop-down list box.

## Setting Communication Parameters

The communication parameters are independent of the selected modem definition. The communication parameters are described below.



To set communication parameters, follow these steps:

1. Select **Configure > Communications**.
2. Select the appropriate communication parameters.

## Modem Port

Most desktop computers communicate with modems through a serial communications port. Laptop computers might use a PCMCIA slot to communicate with a modem. Any given computer might have several communications ports available to which a modem might be attached. In addition, a single computer might have more than one modem attached to it, each using a different communications port. Desktop Remote must be told which of these ports you want to use.

## Rate of Data Transfer

Desktop Remote must be told the bps rate at which you want to initiate communications between your communications port and your modem. If you are unsure of your modem's capacity, please refer to your modem's owner's manual.

Most modern modems automatically adjust their speed to communicate with slower modems. Set the rate as high as your modem allows, and let the modem determine whether to run at that speed or at a slower speed. If you set your rate above 19,200 bps, however, you might experience data loss. If this occurs, reduce your rate.

## Flow Control

Flow control, or handshaking, prohibits either modem in a data transfer from overloading the modem on the other end of a connection. Each modem sends and receives signals to determine if the other modem is ready for more data. If either modem has not processed previous data yet, the sending modem waits before it sends more data.

If your modem communicates at rates of 19200 bps or greater, you should consider using RTS/CTS hardware-regulated flow control. Refer to your modem's owner's manual to find out if your modem performs RTS/CTS flow control.

## Initializing Your Modem

Be sure to include the items described in Table 7-2 in the initialization string if your modem does not automatically default to these settings. The AT command strings provided are common to most Hayes-compatible modems. The default modem descriptions of Desktop Remote already include the appropriate modem command strings.

Table 7-2  
Common Modem Settings

Setting	Expected State and Typical AT Command
Auto answer	OFF (ATS0=0).
Carrier Detect (CD)	Track remote (AT&C1) modem's carrier.
RTS/CTS	ON or OFF (AT\Q3 or AT\Q0).
DSR	ON at all times (AT&S0).

## Setting Dialing Options

You can configure several dialing options for Desktop Remote. You can also configure the number of attempts Desktop Remote should make to connect with other workstations. You can also specify the length of time Desktop Remote waits between each redial.

Desktop Remote uses the dialing options while attempting to connect to a host. Desktop Remote also uses dialing options for a host workstation attempting to make a callback. See “Configuring Host Callback” later in this chapter.

To configure the length of time Desktop Remote allows the phone to ring without making a connection, follow these steps:

Procedure



1. Select **Configure > Dialing Options**.
2. Enter the connection time-out interval in seconds.
3. Click OK.

To configure the number of attempts to connect before giving up, follow these steps:

Procedure



1. Select **Configure > Dialing Options**.
2. Enter the dial retry count.
3. Click OK.

To configure the time interval between redials, follow these steps:

Procedure



1. Select **Configure > Dialing Options**.
2. Enter the time between retries interval in seconds.
3. Click OK.

## Using the Phonebook

The main window of Desktop Remote is the phonebook. The phonebook contains a list of hosts to which your workstation can connect. Each entry includes a host name, phone number, and the speed your modem should use to communicate with the host.

You can add, edit, or delete phonebook entries.

To add entries to the phonebook, follow these steps:

Procedure



1. Select **Edit > Add Entry**.
2. Supply the host name, phone number, and modem speed.
3. Click OK.

To edit entries in the phonebook, follow these steps:

Procedure



1. Select the entry to edit.
2. Select **Edit > Edit Entry**.
3. Edit the host name, phone number, and modem speed.
4. Click OK.

To delete entries from the phonebook, follow these steps:

Procedure



1. **Select the entry to delete.**
2. **Select *Edit > Delete Entry*.**
3. **Select the Yes button in the confirmation dialog box.**

## Using Prefixes and Suffixes

You can add common prefixes or suffixes to your phonebook. This feature enables you to use the same phonebook from different locations without having to modify each entry in the phonebook.

You also can add custom suffixes to the phonebook. This feature can be used to bill long distance calls to a personal or corporate phone card.

A prefix or suffix selected in the main window affects phone numbers dialed from the phonebook and from the Manual Dial dialog box.

To configure a prefix, follow these steps:

Procedure



1. **Select *Edit > Prefix/Suffix List*.**
2. **Select Insert.**
3. **Provide a prefix name and the appropriate prefix.**
4. **Click OK.**
5. **Select Close.**
6. **Select the Prefix drop-down list from the phonebook and select the prefix for Desktop Remote to use in subsequent phone calls.**

To configure a suffix, follow these steps:

Procedure



1. **Select *Edit > Prefix/Suffix List*.**
2. **Select Insert.**
3. **Provide a suffix name and the appropriate Suffix.**

4. **Click OK.**
5. **Select Close.**
6. **Select the Suffix drop-down list from the phonebook and select the suffix for Desktop Remote to use in subsequent phone calls.**

## Connecting to a Host

If you have defined a host station in the phonebook, you can call that host from the phonebook interface.

You can also connect to a host that is not in the phonebook using Desktop Remote's Manual Dial feature.

To connect to a host defined in the phonebook, follow these steps:

Procedure



1. **Select the phonebook entry for the host.**
2. **Select the Dial button.**
3. **Wait to connect.**
4. **Enter your caller password, if necessary.**

To connect to a host not defined in the phonebook, follow these steps:

Procedure



1. **Select *Edit > Manual Dial*.**
2. **Enter the phone number of the host.**
3. **Click OK.**
4. **Wait to connect.**
5. **Enter your caller password, if necessary.**

A prefix or suffix selected in the main window affects phone numbers dialed from the phonebook and from the Manual Dial dialog box.

## Supplying Caller Names and Passwords

You can specify a list of callers who can access a host station. Callers whose names do not appear on the list are not able to access the host. For information about setting up caller access, see “Specifying a Caller Access List” later in this chapter.

To access a station configured with caller access protection, your caller name must be supplied to the host automatically.

To configure system information, follow these steps:

Procedure



1. Select **Configure > System Information**.
2. Enter your caller name in the **PC Name** field.
3. Click **OK**.

## Controlling a Host

Once you have connected to a host, the host’s screen appears in a Viewer window on your workstation. You have control over the host workstation at this point. On the host workstation, the Desktop Remote host icon changes to a remote control icon and the caption becomes Being Accessed.

Do not close the Desktop Remote application or exit Windows on the host workstation. If either application is closed, your session with the host is lost and you might not be able to reconnect to it.

## Setting Remote Control Parameters

You can adjust the Viewing window for Desktop Remote and set hot keys for some of the parameters.

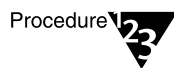
## Setting Remote Control Options

You can configure how a host's screen is replicated on your monitor and how your keystrokes affect the host workstation. The remote control options are explained in Table 7-3.

Table 7-3  
Remote Control Options

Option	Description
Hot Keys Enabled	Enables the Desktop Remote hot key sequences set in the Hot Keys dialog box.
System Key Pass Through	Passes all Ctrl+ and Alt+ keystrokes from the client to the host workstation.
Audible Packet Rate Signal	Sounds a clicking noise each time a packet is received. This feature indicates audibly the amount of traffic between the stations.
Force 16 Color Viewing	Reduces the image of host workstation screens to a 16-color image on the client's monitor only. This allows for better response in the Viewing window.
Suppress Background Bitmaps	Ignores Windows wallpaper, providing faster screen updates.
Default Viewer Font	Determines the font for full-screen DOS sessions. This font is only displayed when viewing a full-screen DOS window on the host workstation.

To set remote control options, follow these steps:



1. Select **Configure > Remote Control > Options**.
2. Toggle the appropriate parameter on or off, and select the desired font size.



## Setting Remote Control Hot Keys

Table 7-4 describes the functions for which you can set hot keys.

**Table 7-4**  
**Functions That Support Hot Keys**

Function	Description
Full Screen Toggle	Maximizes the Viewing window and removes the caption and border.
Refresh Screen	Forces the host screen to refresh.
Restart Viewer	Forces the client workstation to rebuild the screen image.
System Key Pass Through	Toggles the System Key Pass Through feature on or off.
Hot Key Enable	Disables all Desktop Remote hot keys except the Hot Key Enable hot key.
Stop Viewing	Terminates the session with the host.
Win95 System Key Bar	Simulates system keys on the target workstations through a floating toolbar

To set remote control hot keys, follow these steps:

Procedure



1. Select **Configure > Remote Control > Hot Keys**.
2. Select the appropriate hot key field.
3. Press the desired keystroke for the selected hot key field.
4. Press the Hot Key Enable hot key (Ctrl+Alt+H by default).

## Transferring Files

Once a session is active and you are controlling the host workstation, you can transfer files between your workstation and the host. The File Transfer utility is identical to the one found in Desktop Manager. For information about using File Transfer, refer to “Transferring Files” on page 128.

To transfer files, follow these steps:

Procedure



1. **Connect to a host workstation.**
2. **Select *Transfer Files* from the control menu of the Viewing window.**
3. **Select directories and files from the dialog box shown and select the appropriate Copy button.**

Files are copied to or from the host depending on which Copy button you select. The left Copy button copies files to the host, while the right Copy button copies files to the remote station.

## Running in Host Mode

If you want to set up a station as a host, you must enter host mode in Desktop Remote on the station.

Note



The Desktop Remote host mode functionality is not supported on Windows NT. You can dial into Windows\* 3.x, Windows 95\*, and Windows 98\* workstations running in host mode from a Windows NT workstation. This means that if the ManageWise Console is on an Windows NT workstation you can't dial into the ManageWise Console and control it remotely.

- ◆ Select *Host > Enter Host Mode*, or select the Host button.

To enter host mode automatically on program startup, follow these steps:

Procedure



1. **Select *Configure > System Information*.**
2. **Select *Automatically Enter Host Mode*.**
3. **Click OK.**

If you have a dedicated host that should run Desktop Remote each time the workstation is started up, place Desktop Remote in your Windows Startup group and run Windows from your AUTOEXEC.BAT. Then configure Desktop Remote to automatically enter host mode.

When Desktop Remote begins waiting for a call, the Desktop Remote window shrinks to an icon. When the host is engaged in an active session, this icon changes to a remote control icon that is visible to

callers. The caption changes to Being Accessed. You can double-click the icon to access the configuration options of the host station.

## Leaving Host Mode

If Desktop Remote is in host mode, you must exit it before you can connect to other hosts. When you leave host mode, Desktop Remote no longer allows callers to access your workstation. If you leave host mode during an active session with a caller, the session is terminated and the caller cannot reconnect until you reenter host mode.

To leave host mode, follow these steps:

Procedure



1. **Restore the Desktop Remote icon.**
2. **Enter the appropriate password, if necessary.**
3. **Select *Host > Leave Host Mode*.**

## Setting Host Security Options

Desktop Remote provides the following security features to protect the privacy of host workstations and of those who connect to the host:

- ◆ System password
- ◆ Caller Access List
- ◆ Host callback
- ◆ Host screen blanking
- ◆ Disabled host keyboard/mouse
- ◆ Caller log

### Requiring a System Password

You can configure the host station to require a password to run Desktop Remote and to restore the program from a client station. This means that anybody calling the host must know the password in order to change any of the host security options.

To specify a system password, follow these steps:

Procedure



1. Select ***Configure > System Information***.
2. Enable the **Require System Password** option.
3. Enter the password you want to require.
4. Click **OK**.

### Specifying a Caller Access List

You can specify a list of callers who can access a host station. Callers whose names do not appear on the list are not able to access the host. For information on dialing in to a host with caller access protection, see “Supplying Caller Names and Passwords” on page 126.

### Specifying a Default Caller Password

If you select not to specify personal passwords to each authorized caller, you can still specify a default caller password. This password applies to all callers who do not have a personal password.

To specify default caller password, follow these steps:

Procedure



1. Select ***Host > Host Security***.
2. Enable the **Require Caller Password** option.
3. Enter the default password.
4. Click **OK**.

### Specifying Individual Caller Passwords

Each caller specified in the Caller Access List can be assigned a personal password. The personal password overrides any default caller password that might be specified.

To specify individual caller passwords, follow these steps:

Procedure



1. Select ***Host > Host Security***.

2. **Select the caller you want to assign a password to, or insert a new caller.**
3. **Select Edit.**
4. **Enter the appropriate password.**
5. **Click OK.**

### **Configuring Host Callback**

If you select to enable the callback security feature, only callers listed in the Caller Access List are allowed to connect to the host. Each person in the Caller Access List must be assigned a phone number. This phone number is used by the host for callback. If callback is enabled, callers cannot gain access unless the phone number specified in the Caller Access List connects to the caller's modem.

To configure host callback, follow these steps:

Procedure



1. **Select *Host > Host Security*.**
2. **Select Require host callback.**
3. **Select the appropriate caller.**
4. **Select Edit.**
5. **Enter the appropriate phone number and baud rate.**
6. **Click OK.**

### **Blanking the Host Screen**

While a session is active, callers might want to blank the screen of the host computer. This allows callers to conduct their business in privacy, without worrying who might be watching their actions on the host computer's screen.

To blank the host screen, follow these steps:

Procedure



1. Select **Host > Host Security**.
2. Select the **Blank Host Screen During Session** option.
3. Click **OK**.

### Disabling the Host Keyboard and Mouse

You can configure Desktop Remote to disable the keyboard and mouse of a host during a session. This means that a caller would have complete control over the host during a session.

To disable the host keyboard and mouse, follow these steps:

Procedure



1. Select **Host > Host Security**.
2. Select the **Disable Host keyboard and Mouse Control On Host** option.
3. Click **OK**.

### Restarting the Host after Each Session

You can restart the host workstation after each session. This is especially useful to ensure that any network access provided by a previous caller is not extended to subsequent callers.

To restart the host after each session, follow these steps:

Procedure



1. Select **Host > Host Security**.
2. Select the **Restart After Each Session** option.
3. Click **OK**.

### Logging Calls on a Host Workstation

Desktop Remote can record information about each telephone call it receives in host mode. This allows you to review the pattern of usage your Desktop Remote host experiences. It also can help you to identify security problems.

To log calls on a host workstation, follow these steps:

Procedure



1. **Select *Host > Host Security*.**
2. **Select the Enable Call Logging option.**
3. **Click OK.**

To view the call log, follow these steps:

- ◆ **Select *Host > View Call Log*.**

To purge the call log,

Procedure



1. **Select *Host > View Call Log*.**
2. **Click Clear Log.**

## 8 *Managing Print Queues*

You can use the ManageWise® Desktop Manager's Queue Monitor to monitor print queues and print jobs, manage network print queues, and manipulate queued print jobs.

Queue Monitor observes the activity of queues and the jobs sent to them. You can use it to view the status of queues and queued jobs. Double-click a queue to display its name, ID, attached print servers, configuration, and the number of jobs it contains. Double-click jobs to display status, username, size, job number, queue position, capture information, queue entry time, and queue entry date.

This chapter is divided into the following sections:

- ◆ “Starting Queue Monitor” on page 137
- ◆ “Using Queue Monitor” on page 139
- ◆ “Managing Queues” on page 140
- ◆ “Managing Jobs in Queues” on page 142

With the left pane of the Queue Monitor main window active, you can press the Insert and Delete keys to create and delete queues. Double-click queues to configure operators, users, or settings, or to change print server assignments.

Queue Monitor helps you manage queued print jobs. You can use it to manipulate queued jobs in the following ways:

- ◆ Add jobs to a queue
- ◆ Delete jobs from a queue
- ◆ Hold jobs in a queue



- ◆ Position jobs in a queue
- ◆ Move jobs to other queues
- ◆ Copy jobs to other queues
- ◆ Configure job capture options
- ◆ Delay job printing

Use the Insert, Delete, and Pause keys to add, delete, and hold queued jobs. Drag and drop a print job to change the sequence of queued print jobs or to send them to other queues. Double-click jobs to set capture options or to delay printing.

## Launching Desktop Manager

The Desktop Manager utility allows you to customize the inventory database. You will need to be running Desktop Manager to make any changes.

To launch Desktop Manager follow these steps:

Procedure



1. **From the workstation where the ManageWise Console is installed, log in to the network with ADMIN or SUPERVISOR rights or equivalencies.**
2. **Start Windows if you have not already done so.**
3. **Double-click the ManageWise group to open it.**
4. **Double-click the ManageWise Console icon.**
5. **Select a server or network object from either the *View > All NetWare File Servers* window or click on an object in ManageWise Console map.**
6. **Select *Tools > Desktop Manager*.**

For steps on starting the ManageWise Console refer to the *ManageWise Setup Guide*.

## Starting Queue Monitor

When you begin using Queue Monitor, you can configure your workstation/server connections and select the queues you want to appear in the main window.

## Configuring Resource Connections

Queue Monitor enables you to control which queues you monitor from your workstation. If you want to monitor queues on unattached resources, you can log in to them using Queue Monitor.

If you are logging in to a Novell® Directory Services™ (NDS™) tree, you must enter the full name and password. The full name includes your username, organizational unit (OU), and organization (O).

If your username is LEAF1 and you want to log in to the OU called BRANCH3, your full name is

LEAF1 . BRANCH3 . TRUNK2

The default context for new NDS trees is the root.

To change server connections, from the Desktop Manager window, follow these steps:

Procedure



1. Select **File > Network Connections** from the Desktop Manager window.
2. Select the resource or connection you want to change.
3. If you are attaching a server, enter your name and password in the edit boxes. If you are logging in to an NDS tree, enter the full name and password in the edit boxes.
4. Click **Attach** or **Detach**.
5. Click **Close**.

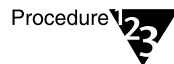
## Configuring Resource Contexts

If you log in to an NDS tree, you can use Queue Monitor to specify a context. The Context tab displays the context, directory context, and the objects in the context of your attachment.

Table 8-1  
NDS Tree Context

Region	Description
Context	Your location in the NDS tree.
Directory context	The hierarchical relationship between objects in the NDS tree. Double-click objects to view their elements.
Objects	The objects in your current context. Queue objects are the default.

To change the current context, follow these steps:



1. **Select *File > Connections > Context*. If you are not logged in to an NDS tree, the context is grayed out.**
2. **If you want to view objects other than queues, click Include.**
3. **Change the context.**
4. **Click OK.**

## Selecting Queues

With Queue Monitor, you can select to monitor any or all of the queues serviced by resources attached to your workstation. Attached resources and their queues are displayed in the main window.

If you log in to an NDS tree, the queues you can select to monitor might reside on volumes to which your workstation is not attached. If you select a queue on an unattached volume, Queue Monitor attempts a background authentication. If you have an available connection slot on your workstation, the connection is authenticated.

To change the selected print queues, follow these steps:

Procedure



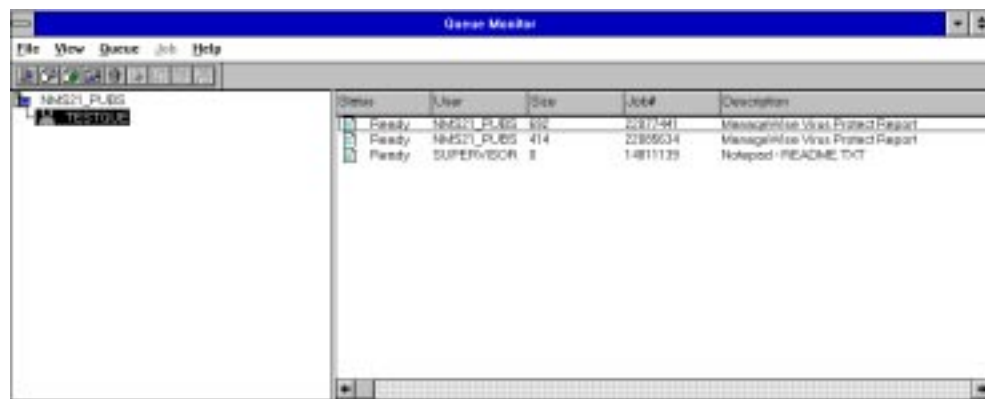
1. Select **View > Options > Select Queues**.
2. Select the print queues you want to monitor.
3. Click OK.
4. If you want to view the same queues the next time you launch Queue Monitor, select **File > Save Configuration on Exit**.

## Using Queue Monitor

Queue Monitor enables you to perform several operations from the main window. You can double-click queues and jobs to view status or click on a queue to display the jobs waiting in it to be printed. You can also drag and drop jobs to change their position in a queue or to move them to other queues.

The main window displays servers, queues, and print jobs. Servers and queues are in the left pane of the main window. The right pane shows the sequence, status, username, size, and job number of queued jobs. If you are using a NetWare® 4™ server and log in to an NDS tree, the left pane displays the tree and the queues in their current context.

Figure 8-1  
Queue Monitor Window



The Queue Monitor main window configuration options enable you to flexibly manage print queues. The main window can be configured to display status messages, toolbar buttons, tool tips, and histograms showing the number of queued jobs and the amount of memory used by those jobs.

To configure the main window, follow this step:

- ◆ Select **View** and the option you want to show or hide.

You can also configure Queue Monitor's discovery rate (the frequency with which it checks the activity and status of print queues on the network). The rate can range from 1 to 60 seconds.

Note



Using a frequent discovery rate or monitoring many queues can increase the amount of network traffic and affect overall workstation response time.

To change the discovery rate, follow these steps:

Procedure



1. Select **View > Options > Discovery Rate** tab.

The default rate is 3 seconds.

2. Enter the new discovery rate.
3. Click **OK**.

## Managing Queues

Queue Monitor enables you to manage print queues on servers attached to your workstation. You can use it to

- ◆ Create new queues
- ◆ Delete existing queues
- ◆ View and change queue configurations

The queue management options available to you depend on your network rights as defined in the NetWare SYSCON or NWADMIN utility. Rights on queues are divided into three groups: SUPERVISOR, ADMIN, OPERATOR, and USER.

If you are SUPERVISOR or ADMIN or equivalent, you can create, delete, and configure queues. If you are creating a queue on an NDS tree, you must have rights in the current context and specify the volume where the queue resides.

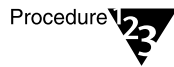
If you are an OPERATOR, you can manage any queue where you have rights. You can configure queue operator flags, define users, and add print servers to queues.

If you are a USER, you can view queue configuration but you cannot change it.

## Creating Queues

You can use Queue Monitor to create new queues on resources attached to your workstation. You must be SUPERVISOR or ADMIN equivalent to perform this operation. Once you have created a queue, you need to configure it. For more information, see “Viewing and Changing Queue Configuration” on page 142.

To create a new queue, follow these steps:

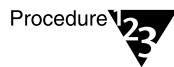


1. **Select the resource you want to add a queue to.**
2. **Select *Queue > Create*.**
3. **Enter the name of the new queue in the edit box.**
4. **Click OK.**

## Deleting Queues

If you are a queue operator or a supervisor with OPERATOR rights, you can use Queue Monitor to delete queues that you no longer want attached to your resources.

To delete a queue, follow these steps:



1. **Select the queue you want to delete.**
2. **Select *Queue > Delete*.**

3. Click OK.

## Viewing and Changing Queue Configuration

Queue users and operators can view the name, ID, and number of jobs in a queue. Queue operators can also configure print server attachments, change queue operator flags, define queue users, and add jobs to a queue.

If you attach a print server to a queue, you must reset the print server before it actively services the queue and appears in the Queue Configuration dialog.

You use Queue Monitor to change the following queue operator settings:

- ◆ Users can place jobs in the queue
- ◆ Print servers can service jobs in the queue
- ◆ New servers can attach to the queue

To view or change queue configuration, follow these steps:

Procedure



1. Select the queue you want to view or change.
2. Select **Queue > Status**.
3. View or make changes by clicking the **Operators**, **Users**, **Servers**, or **Add Jobs** button.
4. Click OK.

## Managing Jobs in Queues

Queue Monitor enables you to manage print jobs in queues available to your workstation. You can use it to perform the following job operations:

- ◆ Add jobs to queues
- ◆ Delete jobs from queues

- ◆ Hold jobs in queues
- ◆ Position jobs in queues
- ◆ Move or copy jobs to other queues
- ◆ View job status information
- ◆ Configure capture options
- ◆ Defer print jobs

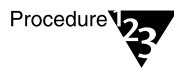
The operations you can perform on queued jobs vary depending on your network rights:

- ◆ If you are a supervisor with OPERATOR rights, you can perform all job operations.
- ◆ If you are a queue operator, you can perform job operations in queues that you have rights on, but you cannot perform operations across queues, such as moving jobs, even if you have rights on both queues.
- ◆ If you are a user and job owner, you can add, delete, or place a hold on your jobs as well as view the status of any job in the network view.

## Adding Jobs to Queues

You can use Queue Monitor to add jobs to a queue without having to send them from a separately launched application. You must be a supervisor granted OPERATOR rights, a queue operator, or a job owner to add jobs to queues.

To add jobs to queues, follow these steps:



- 1. Click the right pane of the main window to bring it on top.**
- 2. Select *Job > Add*.**
- 3. Enter the name of the job or search for it.**
- 4. Click OK.**



## Deleting Jobs from Queues

Queue Monitor enables you to delete jobs from queues. You can use it to delete duplicate print jobs or jobs you no longer want printed. You must be a job owner or have OPERATOR rights to delete print jobs from queues.

To delete a job, follow these steps:

Procedure



1. **Select the jobs you want to delete.**
2. **Select *Job > Delete*.**
3. **Click Yes.**

## Holding Jobs in Queues

You can use Queue Monitor to delay job printing by holding selected jobs in queues. There are two types of job holds: user and operator. Users can hold or release their own user-held jobs; operators can hold or release any job in a queue on which they have rights. A red stop sign appears next to held jobs.

Jobs remain held in queues until holds are removed or jobs are deleted from queues.

To set or remove job holds, follow these steps:

Procedure



1. **Select the jobs you want to hold or to remove holds from.**
2. **Select *Job > Hold*.**
3. **Enable or disable the User Hold or Operator Hold option.**
4. **Click OK.**

You can also set or remove holds using the Job Information dialog.

## Positioning Jobs in Queues

With Queue Monitor, you can change the sequence of jobs in queues. High priority jobs can be moved to the front of the queue order and printed ahead of less urgent jobs. You must be a queue operator or a supervisor with OPERATOR rights to change the sequence of jobs in queues.

To change the sequence of jobs in a queue, follow these steps:

Procedure



1. **Select the jobs you want to move.**
2. **Select *Job > Position in Queue*.**
3. **Enter the new position and click OK.**

You can also drag and drop jobs to the front of queues.

## Moving or Copying Jobs to Queues

If a printer is down or a queue is too busy, Queue Monitor enables you to move or copy jobs to other queues. You must be a supervisor with OPERATOR rights to send jobs to other queues.

To move jobs to other queues, follow these steps:

Procedure



1. **Select the jobs you want to move to a queue.**
2. **Select *Job > Send to Queue*.**
3. **Check the Move Job to Queue option.**
4. **Select the file server and queue you want to move the jobs to.**
5. **Click OK.**

You can also drag and drop jobs to queues.

To copy jobs to queues, follow these steps:

Procedure



1. **Select the jobs you want to copy to a queue.**
2. **Select *Job > Send to Queue*.**

3. Check the Copy Job to Queue option.
4. Select the file server and queue you want to copy the jobs to.
5. Click OK.

## Viewing Job Status

The right pane of the Queue Monitor main window displays information about queued jobs. You can see job status, user, size, number, and description. To see all of the columns, you might need to scroll to the right or resize the column header dividers. You can view more detailed information in the Job Information dialog.

Table 8-2  
Queued Jobs Information

Information	Description
Print Job	Identification number assigned to a job.
Client	Workstation from which a job was sent.
Description	Job's parent application and filename.
Status	Current state of a job in a queue.
File Size	Amount of memory used by a job.
Service Sequence	Position of a job in relation to other queued jobs.
Entry Time	Time a job entered a queue.
Entry Date	Date a job entered a queue.

To view job information, follow these steps:

Procedure



1. Select a queued job.
2. Select *Job > Job Status*.
3. Click OK.

You also can double-click jobs to view status.

## Configuring Job Options

You can use the Job Information dialog to configure capture information, set job holds, change target print servers, and defer job printing to a future date and time. You must be the job owner to configure captures or set user holds. Also, you must have OPERATOR rights to set operator holds or defer printing.

**Table 8-3**  
**Job Options**

Option	Description
Form Feed	Causes job to begin printing at the top of the page.
Notify When Done	Notifies you that a job has finished printing.
User Hold	Holds a job based on ownership.
Operator Hold	Holds a job based on queue operator rights.
Tab	Formats tab stops of applications that don't have print formatters.
Print Banner	Prints a banner page prior to a job. You can enter the text you want printed on the banner in the Name and Banner boxes.
Form	Specifies the size of page a job is printed on.
Copies	Indicates the number of copies you want to print.
Target Server	Specifies which print server a job is sent to.
Defer Printing	Postpones printing until the date and time you specify.

To configure job options, follow these steps:

Procedure



- 1. Select the job whose job options you want to change.**
- 2. Select *Job > Job Status*.**
- 3. Make any changes.**

**4. Click OK.**

You also can double-click jobs to configure status.

# **I***ndex*

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